

TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER
HVAC REPLACEMENT
BLOUNTVILLE, TN

JUNE 7, 2012



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.										
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD	
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION										
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT GENERAL COVER SHEET										
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN										
REVIEWED BY		SUBMITTED BY					APPROVED BY			
		BOB BODRAN					MARK BEEKMAN			
		DESIGNED		GMR	ISSUED BY		DATE	6/7/2012	JCN	701374
		DRAWN		GMR	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-G000	
		CHECKED		WHH					REV	

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

HARTRAMPF

A AMPERE
A AIR COOLED
AA AUTOMATIC AIR VENT
AAV ABOVE FINISHED GRADE
ABG ALTERNATING CURRENT, ABOVE CEILING
AC AIR CONDITIONING
A/C AIR COOLED CHILLER
ACC AIR COOLED DRY FLUID COOLER
ACDFC AMERICAN CONCRETE INSTITUTE
ACI ASBESTOS CONTAINING MATERIAL
ACM ACOUSTICAL CEILING TILE, ACCESS CONTROL TERMINAL
ACT ACCESS DOOR, AREA DRAIN
AD ADJUSTABLE
ADJ AMPERE FRAME
AF ABOVE FINISHED FLOOR
AFF ABOVE FINISHED GRADE
AFR ABOVE FINISHED ROOF
AH AIR HANDLER
AHU AIR HANDLING UNIT
AI ANALOG INPUT
AIC AMPERE INTERRUPTING CAPACITY
AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AL AIRPORT LIGHTING, ALUMINUM
AL-GL ALUMINUM AND GLASS
ALUM ALUMINUM
AMM AMMETER
ANN ANNUNCIATOR
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
AO ANALOG OUTPUT
AP ANNUNCIATOR POINT, ACCESS PANEL
APD AIR PRESSURE DROP
APPROX APPROXIMATELY
ARCH ARCHITECT, ARCHITECTURAL
ARTS AUTOMATED RADAR
AS AIR SEPARATOR
A/S AUDIBLE STROBE
ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATION
AND AIR CONDITIONING ENGINEERS
AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AT AMPERE TRIP
ATBM AIRWAY/TERMINAL BUILDING MAINTENANCE FACILITY
ATC ACOUSTICAL TILE CEILING
ATC AIR TRAFFIC CONTROL
ATCT AIRPORT TRAFFIC CONTROL TOWER
ATS AUTOMATIC TRANSFER SWITCH
ATV ATMOSPHERIC VENT
AUX AUXILIARY
AV AUTOMATIC VENT
AVG AVERAGE
AWG AMERICAN WIRE GAUGE
AWS AMERICAN WELDING SOCIETY

B BAT CHGR BATTERY CHARGER
BBWHH BASEBOARD HOT WATER HEATER
BC BARE COPPER
BCKP BACKUP
BDD BACKDRAFT DAMPER
BF BELOW FLOOR (PIPE SIZE)
BFC BELOW FINISHED CEILING
BFP BACKFLOW PREVENTER
BI BACKWARD INCLINED
BITS BYPASS ISOLATION TRANSFER SWITCH
BLDG BUILDING
BLK BLACK
BOD BOTTOM OF DUCT, BACKDRAFT DAMPER
BOF BOTTOM OF FIXTURE
BOP BOTTOM OF PIPING
BOT BOTTOM
BP BUSTER PUMP
BPU BREAKER PROGRAMMING UNIT
BSDC BARE SOFT DRAWN COPPER
BSMT BASEMENT
BTU BRITISH THERMAL UNIT
BTUH BRITISH THERMAL UNIT/HOUR

C CONDUIT
C CAPACITY
CAV CONSTANT AIR VOLUME
CB CIRCUIT BREAKER
CBCR CURVED BLADE CEILING REG.
CCTV CLOSED CIRCUIT TELEVISION
CD CEILING DIFFUSER, CONDENSATE DRAIN
CENT CENTRIFUGAL
CENTRIF CENTRIFUGAL
CAF COMBUSTION AIR FAN
CF CUBIC FOOT/FEET
CFACC CENTRIF FAN AIR COOLED CONDENSER
CFM CUBIC FEET PER MINUTE
CH CHILLER
CHKD CHECKERED
CHW CHILLED WATER
CHWR CHILLED WATER RETURN
CHWS CHILLED WATER SUPPLY
CWP CHILLED WATER PUMP
CWR CHILLED WATER RETURN
CWS CHILLED WATER SUPPLY
C.I.P CAST IN PLACE
CKT CIRCUIT
CL CENTERLINE
CLF CURRENT LIMITING FUSE
CLG CEILING
CLR CLEAR
CM COMMUNICATION MANHOLE
CMU CONCRETE MASONRY UNIT
CO CLEANOUT, CONDUIT ONLY
COL COLUMN

COMM COMMUNICATIONS
CONC CONCRETE
COND CONDENSATE
CONFIG CONFIGURATION
CONN CONNECTION
CONT CONTINUATION
CONTR CONTRACTOR
COR CONTRACTING OFFICER'S REPRESENTATIVE
CPC CRITICAL POWER CENTER
CPT CARPET
CPU CENTRAL PROCESSING UNIT
CR CONTROL RELAY
CS CONTROL SWITCH
CSF CHEMICAL SHOT FEEDER
CT COOLING TOWER, CABLE TRAY,
CURRENT TRANSFORMER, CERAMIC TILE
CTL CONTROL
CU CONDENSING UNIT, COPPER
CU FT CUBIC FOOT/FEET
CV CONSTANT VOLUME, CONTROL VALVE
CVC CENTRAL VACUUM CLEANER
CW COLD (DOMESTIC) WATER
CWP CONDENSER WATER PUMP, CHILLED WATER PUMP
CWR CONDENSER WATER RETURN
CWS CONDENSER WATER SUPPLY
CWV COMBINATION WASTE AND VENT
CY YD CUBIC YARD

D DRAIN
D DAMPER
DAMP DRY BULB, DIRECT BURIAL, DUCTBANK
DB DOUBLE
DBL DOUBLE
DC DIRECT CURRENT
DDC DIRECT DIGITAL CONTROL
DEG DEGREE
DEMO DEMOLITION
DET DETAIL
DG DOOR GRILLE
DHW DOMESTIC HOT WATER
DI DIGITAL INPUT
DIA DIAMETER
DIAG DIAGONAL
DIFF DIFFUSER
DIM DIMENSION
DISC DISCONNECT
DF DEGREES FAHRENHEIT
DM DEMAND METER
DN DOWN
DO DIGITAL OUTPUT
DP DIFFERENTIAL PRESSURE
DPDT DOUBLE POLE DOUBLE THROW
D PNL DISTRIBUTION PANEL
DPST DOUBLE POLE SINGLE THROW
DPT DIFFERENTIAL PRESSURE TRANSMITTER
DSF DESTRATIFICATION FAN
DT DOUBLE THROW, DIAPHRAM TANK
DTS DOUBLE THROW SWITCH
DWBP DOMESTIC WATER BOOSTER PUMP
DWDI DOUBLE WIDTH DOUBLE INLET
DWGS DRAWINGS
DWL DOWEL

E EAST
EA EACH, EXHAUST AIR
EAT ENTERING AIR TEMPERATURE
ECP ENGINE CONTROL PANEL
EDAM ELECTRICAL DATA ACQUISITION AND MONITORING
EDH ELECTRIC DUCT HEATER
EF EXHAUST FAN
EG, E/G ENGINE GENERATOR, EXHAUST GRILLE
EMERGENCY GENERATOR
EH ELECTRIC HEATER, ELECTRONIC HUMIDIFIER
EHC ELECTRIC HEATING COIL
EIFS EXTERIOR INSULATION FINISH SYSTEM
ELEC ELECTRIC
ELEV, EL ELEVATION, ELEVATOR
EMCS ENERGY MANAGEMENT AND CONTROL SYSTEM
EMERG EMERGENCY
EMI ELECTROMAGNETIC INTERFACE
EMS ENERGY MANAGEMENT SYSTEM
EMT ELECTRICAL METALLIC TUBING
ENT ENTERING
EQ EQUAL
EQUIP EQUIPMENT
ER EXHAUST REGISTER
ERMS ENVIRONMENTAL REMOTE MONITORING SYSTEM
ESP EXTERNAL STATIC PRESSURE
ET EXPANSION TANK
EUH ELECTRIC UNIT HEATER
EW EACH WAY
EWC ELECTRICAL WATER COOLER
EWH ELECTRIC WALL HEATER, ELECTRIC WATER HEATER
EWT ENTERING WATER TEMPERATURE
EXH EXHAUST
EXIST EXISTING
EXP EXPOSED, EXPANSION

F FIRE WATER SUPPLY
F CONCRETE
*F DEGREES FAHRENHEIT
FA FIRE ALARM, FREE AREA, FAN COOLED, FRESH AIR
FAA FEDERAL AVIATION ADMINISTRATION
FACP FIRE ALARM CONTROL PANEL
FACT FACTORY
FC FACE OF CURB, FLEX CONNECTION, FOOT CANDLE
FCO FLOOR CLEANOUT
FCU FAN COIL UNIT
FCV FLOW CONTROL VALVE
FD FLOOR DRAIN, FIRE DAMPER
FDC FIRE DEPARTMENT CONNECTION
FDN FOUNDATION
FDR FEEDER
FE FIRE EXTINGUISHER
FEC FIRE EXTINGUISHER CABINET
FF FLY FAN
FFE FINISHED FLOOR ELEVATION
FG FIBERGLASS
FH FIRE HYDRANT
FHC FIRE HOSE CABINET
FHV FIRE HOSE VALVE
FIG FIGURE
FIN FINISH
FLA FULL LOAD AMPERES
FLR FLOOR
FLEX FLEXIBLE
FLS FLOW SWITCH, FIRE AND LIFE SAFETY
FLUOR FLUORESCENT
FM FACTORY MUTUAL, FORCE MAIN
FO FIBER OPTIC
FOD FACE OPERATED DAMPER
FOG FUEL OIL GAGE
FOR FUEL OIL RETURN
FOS FUEL OIL SUPPLY
FOT FIBER OPTIC TERMINAL, FUEL OIL TRANSFER
FP FIRE PUMP
FPM FEET PER MINUTE
FPU FIELD PROGRAMMING UNIT
FS FLOW SWITCH, FLOOR SINK
FSD FIRE/SMOKE DAMPER
FSS FUSIBLE SAFETY SWITCH
FT FEET
FTG FOOTING, FITTING
FV FULL VOLTAGE
FVC FIRE VALVE CABINET
FW FIRE WATER
FWS FIRE WATER SUPPLY
FWD FORWARD, FIRE SPRINKLER WATER DRAIN

G GROUND
GA GAUGE
GAL GALLON
GALV GALVANIZED
GEN GENERAL, GENERATOR
GFCI GROUND FAULT CIRCUIT INTERRUPTER
GFE GOVERNMENT FURNISHED EQUIPMENT
GFM GOVERNMENT FURNISHED MATERIAL
GND GROUND CONNECTOR
GOVT GOVERNMENT
GPH GALLONS PER HOUR
GPM GALLONS PER MINUTE
GRN GREEN
GRS GALVANIZED RIGID STEEL
GUH GAS FIRED UNIT HEATER
GWB GYPSUM WALLBOARD
GYP GYPSUM

H HAZARDOUS MATERIALS
HB HOSE BIBB
HEX HEXAGONAL
HH HAND HOLE
HM HOLLOW METAL
H. MET. HOLLOW METAL
HOA HAND-OFF-AUTOMATIC
HORIZ HORIZONTAL
HP HORSEPOWER
HPS HIGH PRESSURE SODIUM
HR HOUR
HS HIGH STRENGTH
HSB HIGH STRENGTH BOLT
HT HEIGHT
HTG HEATING
HTR HEATER
HU HUMIDIFIER
HVAC HEATING, VENTILATION AND AIR CONDITIONING
HWP HOT WATER PUMP
HWR HOT WATER RETURN
HWS HOT WATER SUPPLY
HWHU HOT WATER UNIT HEATER
HX HEAT EXCHANGER
HZ HERTZ

I INTERCOMMUNICATION, INTERCOM
IC INVERT ELEVATION
IN INCHES
INCAND INCANDESCENT
INCL INCLUDE
INDIC INDICATOR
INSUL INSULATED
INT INTERIOR
INV INVERT
ISMS INTEGRATED SECURITY MANAGEMENT SYSTEM

J JUNCTION BOX
JB JOCKEY PUMP
JP JOINT
K KILOAMPERES
KA THOUSAND CIRCULAR MILLS
KCMIL KILOVOLT
KV KILOVOLT AMPERES
KVA KILOVOLT AMPERES-REACTIVE
KVAR KILOWATT
KW KILOWATT HOUR

L LOUVER AND SCREEN
L&S LEAVING AIR TEMPERATURE
LAT LINEAR BAR DIFFUSER
LBD LINEAR BAR GRILLE
LBG LINEAR BAR RETURN
LBR POUNDS
LBS LINEAR DIFFUSER
LD LINEAR FEET
LF LIGHTING FIXTURE SCHEDULE
LFS LONG LEG HORIZONTAL
LLH LONG LEG VERTICAL
LLV LONGITUDINAL
LONG LOCAL OPERATING STATUS PANEL
LOSP LOW POINT
LP LOCKED ROTOR AMPERE
LRA LINEAR RETURN AIR GRILLE
LRG LINEAR RETURN GRILLE
LS LIGHT STANDARD
LSD LINEAR SLOT DIFFUSER
LT LIQUID TIGHT
LTG LIGHTING
LV LOW VOLTAGE
LVL LEVEL
LWT LEAVING WATER TEMPERATURE

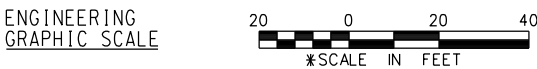
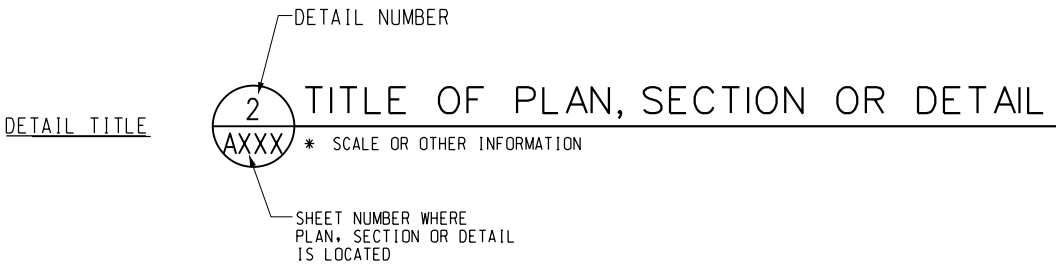
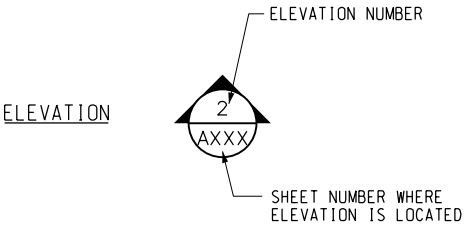
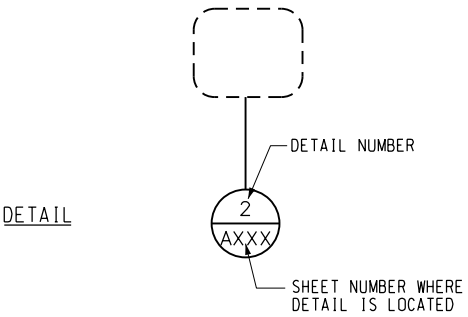
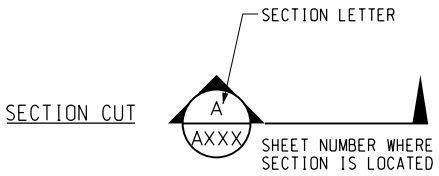
M MAGNETIC DOOR HOLD OPEN
MAG MAINTENANCE
MAINT MAXIMUM
MAX THOUSAND BTU/HOUR
MBH MAINTENANCE BYPASS PANEL
MBP MOLDED CASE BREAKER
MCB MOTOR CONTROL CENTER
MCC THOUSAND CIRCULAR MILLS
MCM MOTOR CIRCUIT PROTECTOR
MCP MANUAL DAMPER
MD MEDIUM DENSITY FIBERBOARD
MDF MAIN DISTRIBUTION TERMINAL
MDT MECHANICAL
MECH MEDIUM
MED MEMBRANE
MEMB MANUFACTURER
MFR MOTOR GENERATOR
MG MANHOLE
MH THOUSANDTHS OF AN INCH
MIL MILITARY STANDARD
MIL ST MINIMAL, MINUTE, MINIMUM
MIN MISCELLANEOUS
MISC MAIN LUGS ONLY
MLO MILLIMETER
MM MOTOR OPERATED DAMPER
MOD MULT-POINT GROUND
MFG MOUNTED
MTD METAL
MTL MAKE-UP AIR
MUA MAKE-UP WATER
MUV MANUAL VENT
MVA MEGAVOLT AMPERE
MVD MANUAL VOLUME DAMPER

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
<div><div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</div><div>HEI JOB NUMBER: 11020.00</div></div><div><div>DESIGNED</div><div>GMR</div></div><div><div>ISSUED BY</div><div>ATLANTA TERMINAL ENGINEERING CENTER</div></div><div><div>DATE</div><div>6/7/2012</div></div><div><div>JCN</div><div>701374</div></div><div><div>DRAWN</div><div>GMR</div></div><div><div>CHECKED</div><div>WHH</div></div><div><div>APPROVED BY</div><div>MARK BEEKMAN</div></div><div><div>REVIEWED BY</div><div></div></div><div><div>DATE</div><div></div></div><div><div>DESCRIPTION</div><div></div></div><div><div>JCN</div><div></div></div><div><div>REDLINE DATE</div><div></div></div><div><div>APVD</div><div></div></div></div>									
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT GENERAL ABBREVIATIONS - SHEET 1									
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN									
REVIEWED BY SUBMITTED BY BOB BODRAN APPROVED BY MARK BEEKMAN									
DESIGNED GMR ISSUED BY ATLANTA TERMINAL ENGINEERING CENTER DATE 6/7/2012 JCN 701374									
DRAWN GMR CHECKED WHH									
TRI-D-ATCT-G010									

N		RL	RAIN LEADER	U	
NA	NORTH, NEUTRAL	RM	ROOM	UBC	UNIFORM BUILDING CODE
NC	NOT APPLICABLE	RMH	ROOF MOUNTED HOOD	UC	UNDERCUT
N.C.	NOISE CRITERIA	RML	RADAR MICROWAVE LINK	UG	UNDERGROUND
NEC	NORMALLY CLOSED	RMS	ROOT MEAN SQUARE	UGP	UNDERGROUND POWER
NEG	NATIONAL ELECTRIC CODE	RO	REVERSE OSMOSIS	UH	UNIT HEATER
NEMA	NEGATIVE	RP BP	REDUCED PRESSURE BACKFLOW PREVENTER	UL	UNDERWRITER'S LABORATORY
NFHB	NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION	RPM	ROTATIONS PER MINUTE, REVOLUTIONS PER MINUTE	UNF	UNFUSED
NFPA	NON-FREEZE HOSE BIB	RPZ	REDUCED PRESSURE ZONE	UNO	UNLESS NOTED OTHERWISE
NG	NATIONAL FIRE PROTECTION ASSOCIATION	ROMTS	REQUIREMENTS	UON	UNLESS OTHERWISE NOTED
NIC	NATURAL GAS	RTN	RETURN	UPC	UNIFORM PLUMBING CODE
NK	NOT IN CONTRACT	RTU	ROOF TOP UNIT	UPS,U	UNINTERRUPTIBLE POWER SUPPLY
NO	NECK	RV	RELIEF VALVE	UTIL	UTILITY
N.O.	NUMBER OF DESIGNATION				
NOM	NORMALLY OPEN	S		V	
NTE	NOMINAL	S	SOUTH, STAIN COLOR, SANITARY	V	VOLT, VOLTAGE, VENT
NTS	NOT TO EXCEED	SA	SUPPLY AIR	VA	VOLT AMPERE, VOICE ALARM
	NOT TO SCALE	SAN	SANITARY	VAC	VACUUM
O		SC	SPIN IN COLLAR WITH VOLUME DAMPER, SENSIBLE COOLING	VAV	VARIABLE AIR VOLUME
OA	OUTSIDE AIR	S.C.	SOLID CORE	VB	VACUUM BREAKER
OAF	OUTSIDE AIR FAN	SCC	SECURITY CONTROL CENTER	VCT	VINYL COMPOSITE TILE
OBD	OPPOSED BLADE DAMPER	SCHED	SCHEDULE	VD	VOLUME DAMPER - MANUAL
OC	ON CENTER	SCHWP	SECONDARY CHILLED WATER PUMP	VDT	VIDEO DISPLAY TERMINAL
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN	SCHWR	SECONDARY CHILLED WATER RETURN	VENT	VENTILATION
ODP	OPEN DRIP PROOF	SCHWS	SECONDARY CHILLED WATER SUPPLY	VERT	VERTICAL
OE	OPEN END	SCND	SECONDARY	VEST	VESTIBULE
OH	OPPOSITE HAND, OVERHEAD	SCP	SYSTEM CONTROL PANEL, SMOKE CONTROL PANEL	VFD	VARIABLE FREQUENCY DRIVE
OPNG	OPENING	SD	SPLITTER DAMPER STORM DRAIN, SMOKE DETECTOR	VM	VOLTMETER
OPP	OPPOSITE	S.D.	SUPPLY DIFFUSER	VPF	VESTIBLE PRESSURIZATION FAN
ORD	OVERFLOW ROOF DRAIN	SEC	SECONDARY	VTR	VENT THROUGH ROOF
ORL	OVERFLOW ROOF LEADER	SECT	SECTION		
OSA	OUTSIDE SUPPLY AIR	SENS	SENSIBLE	W	
OSCO	OUTSIDE CLEANOUT	SF	SQUARE FEET	W	WEST, WIDTH, WATT
OVHD	OVERHEAD	SG	SUPPLY GRILLE	W/	WITH
OZ	OUNCES	SGL	SINGLE	W/O	WITHOUT
		SHDWN	SHUT DOWN	WB	WET BULB
P		SHLD	SHIELDED	WC	WATER COLUMN, WATER CLOSET, WALL COVERING
P	POLE, PAINT, PUMP	SHT	SHEET	WCO	WALL CLEANOUT
PABX	PRIVATE AUTOMATIC BRANCH EXCHANGE	SIM	SIMILAR	WG	WATER GAUGE
PART	PARTITION	SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION	WH	WATER HEATER, WALL HEATER, WALL HYDRANT
PB	PULL BOX			WHA	WATER HAMMER ARRESTER
PCF	POUNDS PER CUBIC FOOT	SOV	SHUT-OFF VALVE	WM	WATT METER
PCHWR	PRIMARY CHILLED WATER RETURN	SP	STATIC PRESSURE(IN W.G.), SINGLE POLE, SUMP PUMP	WMS	WIRE MESH SCREEN
PCHWS	PRIMARY CHILLED WATER SUPPLY	SPEC	SPECIFICATION	WP	SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHERPROOF NEMA TYPE 3R OR EQUIVALENT, UON
PCMS	POWER CONTROL MONITORING SYSTEM	SPF	STAIRWELL PRESSURIZATION FAN	WPD	WATER PRESSURE DROP
PCS	POWER CONDITIONING SYSTEM	SPST	SINGLE POLE SINGLE THROW	WSW	WASHDOWN SUPPLY WATER
PD	PRESSURE DROP	SPT	STATIC PRESSURE TRANSMITTER	WT	WATER TANK
PF	PRESSURE DROP	SPVR	SUPERVISORY CONDITION	WTR	WATER
PFD	POWER FACTOR	SO	SQUARE	WWF	WELDED WIRE FABRIC
PFR	PERFORATED FACE DIFFUSER	SO.FT.	SQUARE FOOT/FEET		
PH	PERFORATED FACE RETURN	SR	SUPPLY REGISTER	X	
PI	ELECTRICAL PHASE	SRG	SIGNAL REFERENCE GRID	X	AUXILIARY RELAY
PIU	PRESSURE INDICATOR	SS	SIGNAL REFERENCE GRID	XFR	TRANSFER
PL	POWER INDUCTION UNIT	S/S	STAINLESS STEEL, SANITARY SEWER	XFMR	TRANSFORMER
PLBG	START-STOP	ST	SHUNT TRIP	XMTR	TRANSMITTER
PLCS	SHUNT TRIP	STD	STANDARD	XDCR	TRANSDUCER
PLYWD	STANDARD	STGP	SIGNAL TRANSPORT GROUND PLANE		
PM	STEEL	STL	STEEL	Y	
PMB	SHIELDED TWISTED PAIR	STP	SHIELDED TWISTED PAIR	Y	WYE
PNL	STRUCTURAL	STRUCT	STRUCTURAL	Y-	WYE DELTA
P.O.C.	SUBJUNCTION	SUBJ	SUBJUNCTION		
PDS	SUSPENDED	SUSP	SUSPENDED	Z	
PP	SWITCH	SW	SWITCH	Z	IMPEDANCE
PREFAB	SWBD	SWBD	SWITCHBOARD		
PRESS	SWC	SWC	SIDEWALL GRILLE		
PRMY	SWGR	SWGR	SWITCHGEAR		
PRSR	SWR	SWR	SIDEWALL REGISTER		
PROP	SWSI	SWSI	SINGLE WIDTH SINGLE INLET		
PRV	SWSR	SWSR	SIDE WALL SUPPLY REGISTER		
PS	SYM	SYM	SYMMETRICAL		
PSF	SYS	SYS	SYSTEM		
PSI		T			
PSIA		T	TRANSDUCER		
PSIG		T	TOP AND BOTTOM		
PT		T&B	TEMPERATURE AND PRESSURE		
PTAC		T&P	TEMPERATURE AND PRESSURE		
PVC		TB	TERMINAL BOX, TERMINAL BOARD		
PVMT		TC	TRIP COIL, TOTAL COOLING, TIME CLOCK		
		TD	TIME DELAY, TRENCH DRAIN		
Q		TEF	TOILET EXHAUST FAN		
QUA	QUARTER	TEL	TELEPHONE		
		TELCO	TELEPHONE COMPANY		
R		TEMP	TEMPERATURE		
R	RED, RISER, RADIATOR, RADIUS, REFRIGERANT	TERM	TERMINAL		
RA	RETURN AIR, REMOTE ANNUNCIATOR	TG	TRANSFER GRILLE		
RACP	REMOTE ACCESS CONTROL PANEL	THK	THICK, THICKNESS		
RAD	RADIUS	TOC	TOP OF CONCRETE		
RAG	RETURN AIR GRILLE	TOD	TOP OF DUCT		
RAR	RETURN AIR REGISTER	TOS,T/S	TOP OF STEEL		
RB	RUBBER BASE	TOWB	ATCT AND ATTACHED BASE BUILDING		
RCP	REINFORCED CONCRETE PIPE, REFLECTED CEILING PLAN	TP	TRAP PRIMER, TWISTER PAIR		
RD	ROOF DRAIN	TRBL	TROUBLE CONDITION		
RDF	RUBBER RAISED DISK FLOOR	TRACO	TERMINAL RADAR APPROACH CONTROL BUILDING		
RE	RESIDENT ENGINEER	TS	TWO SPEED		
REBAR	REINFORCING STEEL BAR	TSP	TOTAL STATIC PRESSURE, TRAP SEAL PRIMER		
REC	RECEPTACLE	T*STAT	THERMOSTAT		
REC'D	RECEIVED	TT	TEMPERATURE TRANSMITTER		
RECP	RECEPTACLE	TTB	TELEPHONE TERMINAL BOARD		
RECT	RECTIFIER, RECEPTACLE	TV	TELEVISION, TEMPERING VALVE		
REF	REFERENCE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR (GFM)		
REG	REGISTER	TYP	TYPICAL		
REINF	REINFORCEMENT, REINFORCED	TW	TEMPERED WATER		
REQ'D	REQUIRED				
RET	RETURN				
REV	REVISION				
RF	RETURN FAN				
RFI	RADIO FREQUENCY INTERFERENCE				
RG	RETURN GRILLE				
RGS	RIGID GALVANIZED STEEL				

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CHECKED WHH				


GENERAL SYMBOLS LEGEND:



* THIS SCALE REFERS TO FULL SIZE DRAWING (22" X 34" DRAWING SHEET SIZE) AND IS USED FOR SCALING AT FULL SCALE AND FOR USING THE APPROPRIATE BAR SCALE WHEN THE SHEET IS REDUCED IN SIZE.

GENERAL NOTES

1. FOR ALL ABBREVIATIONS REFERENCE DRAWINGS G010 & G011.
2. DO NOT SCALE DRAWINGS.
3. VERIFY FIELD CONDITIONS PRIOR TO COMMENCING OF EACH PORTION OF THE WORK.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.										
										
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328										
HEI JOB NUMBER: 11020.00										
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD	
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION										
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT GENERAL SYMBOL LEGEND										
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN										
REVIEWED BY		SUBMITTED BY					APPROVED BY			
		BOB BODRAN					MARK BEEKMAN			
		DESIGNED		GMR	ISSUED BY		DATE	6/7/2012	JCN	701374
		DRAWN		GMR	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-G015	
		CHECKED		WHH					REV	

CONSTRUCTION STAGING NOTES

THE FOLLOWING NOTES REPRESENT MANY OF THE MAJOR REQUIREMENTS STATED IN "DIVISION 1 - GENERAL REQUIREMENTS" OF THE SPECIFICATIONS. THESE NOTES PARAPHRASE OR SUPPLEMENT DIVISION 1 REQUIREMENTS AND ARE NOT INTENDED TO REPLACE DIVISION 1 REQUIREMENTS.

CONSTRUCTION ACCESS (VEHICLE, PEDESTRIAN AND DELIVERIES), CONTRACTOR’S PARKING, CONSTRUCTION OFFICES AND THE EXTENT/SIZE OF THE CONSTRUCTION STAGING AREA MUST BE COORDINATED WITH SITE PERSONNEL VIA THE FAA RESIDENT ENGINEER.

- A. CONSTRUCTION ACCESS
1.

DELIVERIES SHALL BE SCHEDULED IN ADVANCE WITH THE FAA RESIDENT ENGINEER AND AT TIMES OTHER THAN THE FAA EMPLOYEE SHIFT CHANGES TO AVOID CONGESTION.
- B. CONTRACTOR STAGING AREA AND PARKING
1.

CONTRACTOR’S STAGING AND PERSONNEL PARKING IS LIMITED AND SHALL BE DETERMINED AT THE PRECONSTRUCTION CONFERENCE. CONTRACTOR SHALL PROVIDE SIGNS AS NECESSARY TO RESERVE AN AREA FOR CONSTRUCTION PARKING ONLY.
- C. FAA SECURITY REQUIREMENTS
1.

AN ADVANCE LIST OF THE CONTRACTOR’S PERSONNEL SHALL BE PROVIDED TO THE FAA RESIDENT ENGINEER. TEMPORARY SECURITY BADGES MAY BE ISSUED TO THOSE CONSTRUCTION PERSONNEL. CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONDUCT OF CONTRACTOR’S PERSONNEL ON SITE. CONTRACTOR VEHICLES SHALL BE IDENTIFIED AS SUCH. EACH CONSTRUCTION EMPLOYEE SHALL CHECK IN AND OUT UPON ENTERING AND LEAVING THE SITE.

2.

THE BUILDING IS A SECURE AREA, AND CONSTRUCTION PERSONNEL SHALL REMAIN IN THE CONSTRUCTION AREAS. CONTRACTOR SHALL MINIMIZE INGRESS AND EGRESS.
- D. CONSTRUCTION MATERIAL STORAGE
1.

STORAGE OF CONSTRUCTION MATERIALS AND TRAILERS ON THE SITE SHALL BE LIMITED TO THE CONSTRUCTION STAGING AREA. MATERIALS SHALL BE NEATLY STORED AND PROTECTED. A CONSTRUCTION FENCE SHALL BE PROVIDED AT THE DISCRETION OF THE FAA RESIDENT ENGINEER. CONTRACTOR SHALL NOT PERFORM ANY DIGGING WITHOUT PERMISSION FROM THE FAA RESIDENT ENGINEER. BURIED CABLES AND OTHER EXISTING UNDERGROUND UTILITIES MAY RUN THROUGH THE STAGING AREA AND ELSEWHERE.
- E. CONSTRUCTION DEBRIS
1.

ENCLOSED DUMPSTERS FOR DISPOSAL OF CONSTRUCTION DEBRIS SHALL BE PROVIDED BY THE CONTRACTOR WITHIN THE STAGING AREA. THE AREAS AROUND THE DUMPSTERS SHALL BE KEPT CLEAN AND FREE OF DEBRIS AND DUST DURING CONSTRUCTION. DEBRIS SHALL BE REMOVED BY THE CONTRACTOR IN A TIMELY MANNER.
- F. CONSTRUCTION OFFICE
1.

CONTRACTOR TRAILERS FOR OFFICE MATERIALS AND EQUIPMENT STORAGE SHALL BE LOCATED WITHIN THE SITE AS APPROVED BY THE FAA RESIDENT ENGINEER. CONTRACTOR WILL PROVIDE AND PAY FOR TEMPORARY POWER AND TELEPHONE SERVICE TO CONSTRUCTION OFFICES DURING CONSTRUCTION.
- G. DEMOLITION AND CONSTRUCTION HOURS
1.

THE CONTRACTOR SHALL NOT INTERFERE WITH THE AIR TRAFFIC CONTROL FUNCTION OF THE FACILITY. DEMOLITION NOISE, CONSTRUCTION NOISE AND ALL WORK IN AND IN AREAS ADJACENT TO THE AIR TRAFFIC CONTROL FUNCTION MUST BE ACCOMPLISHED AFTER NORMAL OPERATING HOURS. COORDINATE NIGHT WORK AND OVERTIME CONSTRUCTION IN ADVANCE WITH THE FAA RESIDENT ENGINEER.

2.

SEE SEQUENCE NOTES FOR FURTHER INFORMATION.

3.

CONCRETE SAWING, GRINDING, CORE DRILLING, CONCRETE DEMOLITION AND ANCHOR DRILLING WILL BE ALLOWED ONLY AT PREARRANGED TIMES APPROVED BY THE FAA RESIDENT ENGINEER.

4.

PROTECT CAB GLASS, INSIDE AND OUTSIDE THE BUILDING, FROM DAMAGE CAUSED BY IMPACT, WELDING, DEBRIS, AND DUST, INCLUDING DRILLING. GLASS PROTECTION MUST BE REMOVED IN AIR TRAFFIC CONTROL FUNCTION HOURS.
- H. EQUIPMENT PROTECTION
1.

EXISTING FAA AIR TRAFFIC COMPUTERS AND EQUIPMENT SHALL REMAIN OPERATIONAL THROUGHOUT THE DURATION OF THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUOUS PROTECTION OF THIS EQUIPMENT FROM PHYSICAL AND ELECTRICAL DAMAGE AS A RESULT OF INCIDENTAL OR ACCIDENTAL NEGLIGENCE SUCH AS, BUT NOT LIMITED TO, DISRUPTION OF POWER TO THE UNITS. INFORM THE FAA RESIDENT ENGINEER IMMEDIATELY IF SUCH DAMAGE OR DISRUPTION OF POWER SHOULD OCCUR. THE LOSS OF THESE COMPUTERS AND EQUIPMENT FOR ANY AMOUNT OF TIME WILL JEOPARDIZE THE SAFETY OF THE FLYING PUBLIC.

2.

SHUTDOWNS, CUTOVERS AND ANY TEMPORARY PROVISIONS FOR PLUMBING, MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE ACCOMPLISHED AFTER NORMAL OPERATING HOURS. PREPARATORY WORK SHALL BE COMPLETED PRIOR TO SHUTDOWN. CUTOVER WORK SHALL BE SCHEDULED AND COORDINATED WITH THE FAA RESIDENT ENGINEER A MINIMUM OF 10 WORKING DAYS IN ADVANCE OF THE SHUTDOWN OR CUTOVER.

3.

WELDING EQUIPMENT SHALL NOT BE POWERED BY THE FACILITY ELECTRICAL SYSTEM. WELDING SHALL NOT BE PERMITTED IN FAA OCCUPIED AREA.

CONSTRUCTION SEQUENCE NOTES

1.

THE CONTRACTOR SHALL PROVIDE A COMPLETE AND COMPREHENSIVE SCHEDULE TO THE RESIDENT ENGINEER FOR REVIEW AND APPROVAL BEFORE A NOTICE TO PROCEED IS ISSUED. SCHEDULE SHALL OUTLINE ALL PHASES OF THE WORK AND THEIR IMPACT ON THE OPERATION OF THE FACILITY.
2.

SIGNIFICANT AMOUNTS OF WORK MUST BE COMPLETED AFTER NORMAL OPERATING HOURS. COORDINATE TIMES WITH FAA RESIDENT ENGINEER.
3.

CONSTRUCTION NOISE, DUST AND DEBRIS MUST NOT INTERFERE WITH OPERATION OF ATCT FACILITY. MAINTAIN HEPA FILTRATION OF TOWER CAB DURING ALL ABATEMENT AND GENERAL CONSTRUCTION SEQUENCES.
4.

CONTRACTOR TO PROVIDE ADEQUATE MEASURES FOR VENTILATION TO MINIMIZE ODORS DURING PAINTING AND OTHER CONSTRUCTION ACTIVITIES THAT HAVE THE POTENTIAL FOR STRONG ODORS. THE RESIDENT ENGINEER SHALL APPROVE THE SYSTEM TO BE UTILIZED FOR VENTILATION.

CONSTRUCTION GENERAL NOTES

1.

THE CONSTRUCTION OF THIS PROJECT MUST NOT INTERFERE WITH OPERATION OF THE AIR TRAFFIC CONTROL FUNCTION DURING NORMAL OPERATING HOURS. NORMAL HOURS OF OPERATION ARE STATED IN DIVISION 1 OF THE SPECIFICATIONS.
2.

LOCKOUT AND TAG PROCEDURES MUST BE FOLLOWED AT ALL TIMES.
3.

ALL ELECTRONIC EQUIPMENT CIRCUITS SHALL BE RELOCATED BY THE FAA. ALL OTHER BUILDING SYSTEMS CIRCUITS SHALL BE RELOCATED BY THE CONTRACTOR. COORDINATE WITH RESIDENT ENGINEER.
4.

DO NOT PAINT OVER ANY FIRE DOOR LABEL.
5.

REINSTALL ALL SMOKE/FIRE DETECTORS AS REQUIRED.





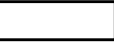
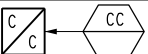
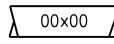
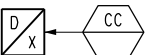

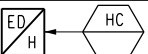
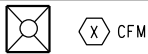
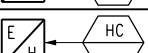
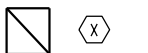
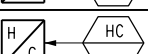
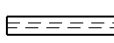











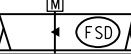

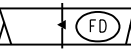



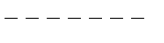



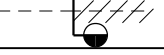

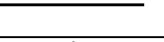

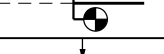





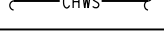

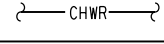

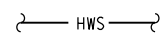

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.										
<div><div></div><div>HARTRAMPF</div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</div><div>HEI JOB NUMBER: 11020.00</div></div>										
	REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD	
	DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
	TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT GENERAL CONSTRUCTION COORDINATION NOTES									
	BLOUNTVILLE				TRI-CITIES REGIONAL AIRPORT (TRI)				TN	
	REVIEWED BY		SUBMITTED BY				APPROVED BY			
			BOB BODRAN				MARK BEEKMAN			
		DESIGNED		GMR	ISSUED BY		DATE	6/7/2012	JCN	701374
		DRAWN		GMR	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-G040	
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SUSPECTED ASBESTOS MATERIAL LOCATION SUMMARY (SEE SPECIFICATION FOR ACM REPORT)			
FLOOR LEVEL	ROOM NAME	ASBESTOS MATERIAL (ACM)	AFFECTED FOR THE PROJECT
FIRST FLOOR	ENTRY	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	ELEVATOR CAR	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	HALL	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	STAIR LANDING	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	MECHANICAL EQUIPMENT ROOM	1' X 1' BLUE FLOOR TILE MASTIC	YES
	CABLE ACCESS ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	ELEVATOR MACHINE ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	STORAGE ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	PIPE CHASE	WAS NOT ACCESIBLE FOR SAMPLING - ASSUMED TO CONTAIN ACM	NO
SECOND FLOOR	ENTRY	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	STAIR LANDING	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	MECHANICAL EQUIPMENT ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	STORAGE ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	PIPE CHASE	WAS NOT ACCESIBLE FOR SAMPLING - ASSUMED TO CONTAIN ACM	NO
THIRD FLOOR	ENTRY	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	STAIR LANDING	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	MECHANICAL EQUIPMENT ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	STORAGE ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	PIPE CHASE	WAS NOT ACCESIBLE FOR SAMPLING - ASSUMED TO CONTAIN ACM	NO
FOURTH FLOOR	STAIR LANDING	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	ELECTRONIC EQUIPMENT ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	JANITOR'S CLOSET	1' X 1' BLUE FLOOR TILE MASTIC	NO
	ENTRY	1' X 1' BLUE FLOOR TILE MASTIC	NO
	MECHANICAL EQUIPMENT ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	PIPE CHASE	WAS NOT ACCESIBLE FOR SAMPLING - ASSUMED TO CONTAIN ACM	NO
FIFTH FLOOR	ENTRY	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	STAIR LANDING	1' X 1' BEIGE SPECKLED FLOOR TILE MASTIC	NO
	MECHANICAL EQUIPMENT ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	ATCT ADMIN. SUPERVISOR'S OFFICE	1' X 1' BLUE FLOOR TILE MASTIC	NO
	TRACON	1' X 1' BLUE FLOOR TILE MASTIC	NO
SIXTH FLOOR	ENTRY	1' X 1' BLUE FLOOR TILE MASTIC	NO
	MECHANICAL EQUIPMENT ROOM	1' X 1' BLUE FLOOR TILE MASTIC	YES
	STORAGE ROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	TELCO	1' X 1' BLUE FLOOR TILE MASTIC	NO
	BREAKROOM	1' X 1' BLUE FLOOR TILE MASTIC	NO
	PIPE CHASE	WAS NOT ACCESIBLE FOR SAMPLING - ASSUMED TO CONTAIN ACM	NO
	ROOF FLASHING	CONTAINED ACM	NO
	ROLLED ROOFING	NO FRIABLE, NOT SAMPLED TO AVOID DAMAGE, ASSUME ACM	NO
	ROOF MASTIC	NO FRIABLE, NOT SAMPLED TO AVOID DAMAGE, ASSUME ACM	NO
	ROOF TAR	NO FRIABLE, NOT SAMPLED TO AVOID DAMAGE, ASSUME ACM	NO
CAB ROOF	ROOF FLASHING	CONTAINED ACM	NO
	ROLLED ROOFING	NO FRIABLE, NOT SAMPLED TO AVOID DAMAGE, ASSUME ACM	NO
	ROOF MASTIC	NO FRIABLE, NOT SAMPLED TO AVOID DAMAGE, ASSUME ACM	NO
	ROOF TAR	NO FRIABLE, NOT SAMPLED TO AVOID DAMAGE, ASSUME ACM	NO

HAZMAT NOTES

1. BUILDING CONTAINS HAZARDOUS MATERIAL (HAZMAT) LOCATIONS. SHOWN ON THIS DRAWING IS A SUMMARY OF ASBESTOS CONTAINING MATERIAL (ACM) LOCATIONS AS CONTAINED IN THE REPORT PREPARED BY RESEARCH MANAGEMENT CONSULTANTS, INC. A SUMMARY OF THIS REPORT IS INCLUDED IN THE SPECIFICATION. THE COMPLETE REPORT IS ON FILE WITH THE FAA.
2. IT IS THE INTENT OF THIS DRAWING FOR ALL EXISTING ACM TO REMAIN IN PLACE, UNLESS NOTED OTHERWISE. IF DAMAGE OCCURS TO EXISTING ACM MATERIALS REFER TO APPROPRIATE SECTIONS OF FAA STANDARD SPECIFICATIONS 02 82 15, 02 82 33.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																							
<div><div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</div><div>HEI JOB NUMBER: 11020.00</div></div><div><div>HARTRAMPF</div></div></div>																							
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TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT GENERAL HAZARDOUS MATERIAL (HAZMAT) INFORMATION																							
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN																							
REVIEWED BY		SUBMITTED BY BOB BODRAN						APPROVED BY MARK BEEKMAN															
		DESIGNED		GMR		ISSUED BY		DATE		JCN													
		DRAWN		GMR		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012		701374													
		CHECKED		WHH				DRAWING NO		REV													
										TRI-D-ATCT-H001													

HEATING, VENTILATION & AIR CONDITIONING LEGEND			
	DETAIL NUMBER DRAWING WHERE SHOWN		FLEXIBLE PIPE CONNECTION
	ADJUSTABLE THERMOSTAT WITH ALPHANUMERIC DISPLAY		FLEXIBLE DUCT CONNECTION
	EQUIPMENT (REFER TO SCHEDULE)		CHILLED WATER, COOLING COIL
	DUCT SIZE - FIRST FIGURE IS SIDE SHOWN		DIRECT EXPANSION, COOLING COIL
	LINED DUCTWORK		ELECTRIC DUCT HEATER, HEATING COIL
	CEILING DIFFUSER FOUR WAY BLOW U.N.O. (REFER TO SCHEDULE)		ELECTRIC, HEATING COIL
	RETURN AIR GRILLE (REFER TO SCHEDULE)		HOT WATER, HEATING COIL
	LOUVER AND SCREEN REFER TO PLANS FOR SIZE		SUPPLY FAN
	CONDENSATE DRAIN TRAP (SEE DETAILS)		HUMIDITY SENSOR
	DUCT SECTION POSITIVE PRESSURE		CHILLER
	DUCT SECTION NEGATIVE PRESSURE		BOILER
	SPIN-IN FITTING WITH MANUAL DAMPER/FLEX. DUCT		AUTOMATIC DAMPER PARALLEL BLADE WITH SEALS
	DUCT SECTION ROUND		TEMPERATURE TRANSMITTER DUCT-MOUNTED
	MANUAL VOLUME DAMPER		
	COMBINATION FIRE AND SMOKE DAMPER		TEMPERATURE TRANSMITTER, DUCT-MOUNTED, AVERAGING
	FIRE DAMPER		
	DUCT SMOKE DETECTOR		SMOKE DETECTOR, DUCT-MOUNTED
	90° LOW PRESSURE ELBOW (PROVIDE DOUBLE THICKNESS TURNING VANE)		
	EXISTING WORK AS SHOWN LIGHT DASHED		PRESSURE TRANSMITTER
	EXISTING WORK SHALL BE REMOVED AS SHOWN CROSS-HATCHED		PRESSURE INDICATOR (GAUGE)
	INTERFACING POINT BETWEEN EXISTING WORK TO REMAIN AND EXISTING WORK TO BE REMOVED		MOTOR OPERATED DAMPER
	NEW WORK SHOWN AS HEAVY SOLID LINE		VARIABLE FREQUENCY DRIVE
	CONNECTING POINT BETWEEN NEW WORK AND EXISTING WORK		AIR FLOW MEASURING STATION
	ACTUATOR ELECTRIC OR ELECTRONIC		DIFFERENTIAL - PRESSURE TRANSMITTER
	SQUARE-TO-ROUND TRANSITION		CURRENT RELAY
	CHILLED WATER SUPPLY LINE		FILTER
	CHILLED WATER RETURN LINE		HUMIDIFIER
	HOT WATER SUPPLY LINE		
	HOT WATER RETURN LINE		

SPECIAL NOTES

- MINIMIZING EQUIPMENT DOWNTIME IS CRITICAL FOR THE PROPER OPERATION OF FAA EQUIPMENT. COORDINATE WITH THE FAA RESIDENT ENGINEER FOR MEASURES TO BE TAKEN PRIOR TO EQUIPMENT SHUT DOWN. THE CONTRACTOR SHALL PROVIDE TEMPORARY HEATING AND/OR COOLING SYSTEM DURING CONSTRUCTION AS REQUIRED TO CONDITION THESE SPACES AS FOLLOWS: ELECTRONIC EQUIPMENT ROOMS, TRACON AND TOWER CAB. THE TEMPORARY EQUIPMENT SHALL BE CAPABLE OF MAINTAINING SPACE TEMPERATURE REGARDLESS OF THE TIME OF YEAR WORK IS ACCOMPLISHED. THE FAA RESIDENT ENGINEER SHALL APPROVE THE TEMPORARY HEATING AND/OR COOLING SYSTEM TO BE UTILIZED TO MAINTAIN SPACE TEMPERATURE. ELECTRONIC EQUIPMENT ROOMS, TRACON AND TOWER CAB SHALL BE MAINTAINED AT 73°F.
- CONTRACTOR SHALL SUPPLY EMERGENCY SERVICE RESPONSE FOR TEMPORARY SYSTEMS. CONTRACTOR SHALL GUARANTEE 4 HOUR RESPONSE TIME FROM NOTIFICATION TO ARRIVAL OF SERVICE PERSONNEL.
- ALL WORK IN THE TOWER CAB SHALL BE PERFORMED BETWEEN HOURS IDENTIFIED BY LOCAL FAA PERSONNEL AND RESIDENT ENGINEER DURING THE PRE-BID CONFERENCE.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL ELECTRONIC EQUIPMENT. THE PROTECTION SHALL BE REMOVED AND CLEANED AT THE END OF EACH WORK SHIFT.

HVAC GENERAL NOTES

- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS (DO NOT SCALE FOR LOCATIONS). IT IS INTENDED THAT A COMPLETE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM (HVAC) BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES AND CONTROLS. THE CONTRACTOR SHALL CAREFULLY REVIEW ALL THE CONTRACT DOCUMENTS AND COORDINATE BETWEEN ALL TRADES PRIOR TO SUBMITTING SHOP DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL SIZES, MATERIALS, TEMPERATURE AND PRESSURE RATINGS BEFORE ORDERING OR INSTALLING ANY MATERIALS OR EQUIPMENT. THE CONTRACTOR SHALL PREPARE INSTALLATION INSTRUCTIONS AND FABRICATION DRAWINGS PRIOR TO ACTUAL INSTALLATION.
- REFER TO EACH DRAWING FOR NOTES SPECIFIC TO THAT DRAWING SHEET.
- THIS PROJECT IS A RENOVATION OF AN EXISTING FACILITY, AND PREVIOUS RECORD DRAWINGS FORM THE BASIS FOR MANY OF THESE DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OR PURCHASE OF EQUIPMENT, MATERIALS, AND ASSEMBLIES. THERE MAY EXIST FIELD CONDITIONS WHICH DIFFER FROM THOSE SHOWN ON THESE DRAWINGS. ANY SUCH DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE FAA RESIDENT ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH ANY CONSTRUCTION, FABRICATION, OR MATERIAL/EQUIPMENT PURCHASE WHICH WOULD BE UNUSABLE UNDER THOSE CIRCUMSTANCES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF CONTRACTOR'S PERSONNEL EMPLOYED ON THIS PROJECT AND IN PARTICULAR, WHEN WORKING IN CONFINED SPACES. THE CONTRACTOR SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
- COORDINATE THE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH DIVISION 26 (ELECTRICAL CONTRACT DOCUMENTS) PRIOR TO ORDERING. PROVIDE WRITTEN VERIFICATION OF COORDINATION WITH DIVISION 26 PRIOR TO INSTALLATION OF EQUIPMENT.
- COORDINATE DUCTWORK AND PIPING WITH ELECTRICAL, STRUCTURE, AND PLUMBING. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ADDITIONAL EXPENSE TO THE GOVERNMENT.
- ALL WIRING LOCATED ABOVE A SUSPENDED CEILING SHALL BE CONTAINED IN CONDUIT.
- ALL DAMPERS, DAMPER OPERATORS, AND FANS SHALL BE ACCESSIBLE. LOCATE ALL EQUIPMENT OR APPURTENANCES IN AREAS WITH ACCESSIBLE CEILINGS. THE CONTRACTOR MAY UTILIZE ACCESS PANELS FOR THOSE AREAS NOT EASILY ACCESSIBLE. ALL ACCESS PANEL LOCATIONS SHALL BE COORDINATED WITH THE CONTRACT DOCUMENTS AND APPROVED BY THE FAA RESIDENT ENGINEER PRIOR TO INSTALLATION OF EQUIPMENT.
- ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS.
- DUCT SIZES ARE SHOWN AS INSIDE CLEAR DIMENSIONS. WHERE INTERNAL INSULATION IS CALLED FOR, DIMENSIONS SHALL BE INCREASED FOR THE THICKNESS OF THE INSULATION. SEE SPECIFICATION FOR THICKNESS.
- ALL BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE DIFFUSER INLET SERVED UNLESS NOTED OTHERWISE. FLEXIBLE DUCT TO DIFFUSERS SHALL BE INSTALLED FREE OF KINKS AND SAGS. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 6'-0". ALL RUNOUT AND BRANCH DUCTS SHALL CONTAIN A MANUAL VOLUME DAMPER FOR BALANCING.
- ALL DIFFUSERS SHALL HAVE FOUR-WAY BLOW UNLESS NOTED OTHERWISE. ADJUST ALL DIFFUSERS INSTALLED IN CORRIDORS OR WITHIN 3 FEET OF A WALL TO PROVIDE TWO-WAY OR THREE-WAY BLOW AWAY FROM OR PARALLEL TO WALLS.
- ALL OPEN ENDED DUCTS SHALL BE REINFORCED WITH STEEL ANGLES (1-1/2" X 1-1/2" X 1/8") BOLTED OR RIVETED 6" ON CENTER (MAXIMUM) ALL AROUND THE PERIMETER OF THE DUCT MINIMUM 2 PER SIDE.
- PROVIDE THERMOSTATS OR HUMIDISTATS WHERE SHOWN ON THE DRAWINGS. MOUNT DEVICES 5'-6" ABOVE THE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- CONDENSATE DRAIN LINES ROUTED HORIZONTALLY SHALL SLOPE 1/8" PER FOOT DOWN IN THE DIRECTION OF FLOW.
- ALL PIPING PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOOR SLAB SHALL HAVE PIPE SLEEVES WITH FIRESTOPPING MATERIAL. CAULK ANNULAR SPACE BETWEEN PIPE AND SLEEVE. PIPE THROUGH WALLS SHALL HAVE ESCUTCHEONS.
- INSTALL DUCTWORK AS HIGH AS POSSIBLE ABOVE CEILING TO AVOID CONFLICTS WITH CABLE TRAY, ETC.


SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.


REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD					
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION										
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL HVAC LEGEND AND GENERAL NOTES										
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)		TN					
REVIEWED BY	SUBMITTED BY		APPROVED BY							
	BOB BODRAN		MARK BEEKMAN							
	DESIGNED	NJ	ISSUED BY	DATE	JCN					
	DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER	6/7/2012	701374					
	CHECKED	WHH	DRAWING NO	REV						
			TRI-D-ATCT-M000							
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328										
HEI JOB NUMBER: 11020.00										

POWER


SYMBOL	MOUNTING HEIGHT, AFF	DESCRIPTION
S	+48"	SPST, HEAVY DUTY TOGGLE SWITCH, UON

MOTORS


SYMBOL	MOUNTING HEIGHT, AFF	DESCRIPTION
	+60'	HEAVY DUTY NON-FUSIBLE DISCONNECT SWITCH, WHERE 60/3 INDICATES NEMA FRAME SIZE/NUMBER OF POLES/NEMA RATING, NEMA 4X ENCLOSURES SHALL BE STAINLESS STEEL

		NEW COMBINATION NON-FUSIBLE DISCONNECT AND MAGNETIC MOTOR STARTER IN NEMA 1 ENCLOSURE. 30/1 INDICATES 30 AMP, 3-POLE SWITCH AND SIZE 1 MAGNETIC STARTER
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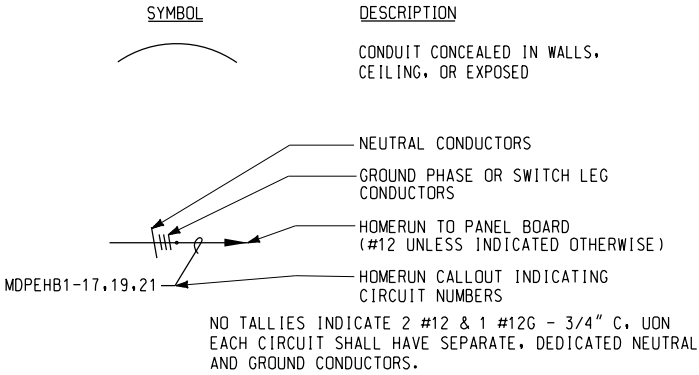
PULL BOXES / JUNCTION BOXES

SYMBOL	DESCRIPTION
	JUNCTION BOX.



MISCELLANEOUS

SYMBOL	DESCRIPTION
	TRANSFORMER
S _D	SLIDE DIMMER


RACEWAYS



LIGHTING


SYMBOL	DESCRIPTION
	2'X2' RECESSED LINEAR FLUORESCENT LIGHTING FIXTURE, TYPE INDICATED
	4' LINEAR FLUORESCENT STRIP LIGHTING FIXTURE, TYPE INDICATED

PANELBOARDS AND CABINETS

SYMBOL	MOUNTING HEIGHT, AFF	DESCRIPTION
	+78" (TOP)	3 PHASE, 4 WIRE PANELBOARD, SURFACE MOUNTED, 208/120V, ESSENTIAL OR CRITICAL

GENERAL NOTES


- PROVIDE SEISMIC RESTRAINTS ON ALL CONDUIT AND CABLE TRAYS. CONTRACTOR TO SUBMIT CALCULATIONS STAMPED BY STRUCTURAL ENGINEER.
- RECESSED/PENDANT/SURFACE-MOUNTED LIGHT FIXTURES SHALL HAVE A MINIMUM OF TWO SEISMIC BRACING WIRE SUPPORTS (12 GAUGE) PER FIXTURE. FOR PENDANT LIGHT FIXTURES, PROVIDE TRANSVERSE AND LONGITUDINAL BRACING'S. FOR RECESSED LIGHT FIXTURES, TIE OPPOSITE ENDS OF FIXTURE OFF TO STRUCTURE.
- PROVIDE CONNECTIONS TO ALL MOTORS, TO ALL HVAC AND PLUMBING EQUIPMENT AND TO ALL OTHER EQUIPMENT PROVIDED UNDER OTHER DIVISIONS OF WORK FROM DISCONNECT SWITCH, STARTER, J-BOX, ETC.
- POWER CIRCUITS FOR HVAC EQUIPMENT ARE SHOWN ON ELECTRICAL DRAWINGS.
- MINIMUM TRADE CONDUIT SIZE SHALL BE 3/4". MINIMUM POWER CONDUCTOR SIZE SHALL BE #12 THWN/THHN COPPER. PREWIRED LIGHT WHIPS ARE NOT ALLOWED UNLESS THEY COMPLY WITH THIS REQUIREMENT.
- ALL CIRCUITS SHALL INCLUDE A GREEN GROUND WIRE.
- ALL HARDWARE, INCLUDING CLAMPS, BOLTS, NUTS, WASHERS, STRUTS, ANCHOR BOLTS, ANGLES, ETC. USED TO SUPPORT OR INSTALL ANY EXTERIOR (AND NON-CONDITIONED LOCATIONS) HANDRAIL, EQUIPMENT, PIPE, CONDUIT, BOX OR OTHER DEVICE SHALL BE STAINLESS STEEL AISI 304, OR AISI 316.
- SEE MECHANICAL DRAWINGS FOR EQUIPMENT PAD DETAILS.
- PROVIDE PULLBOX IN ALL CONDUIT CIRCUITS THAT EXCEED FOUR NINETY DEGREE TURNS. COORDINATE LOCATION OF PULLBOXES WITH CONDUIT, LIGHTS, DUCTWORK, PIPING, ETC.
- FOR TOWER CONDUIT RISERS- EXPOSED/SURFACE MOUNTED CONDUIT IS ACCEPTABLE IN THE TOWER WITH THE EXCEPTION OF AREAS WITH SUSPENDED CEILINGS. CONDUIT IN AREAS OF SUSPENDED CEILINGS SHALL BE RUN ABOVE THE CEILING OR CONCEALED IN WALLS.
- FOR TOWER CONDUIT RISERS- REQUIRED PENETRATIONS SHALL BE NEATLY CORE DRILLED WITH GALVANIZED STEEL SLEEVES INSTALLED.
- SEE SPECIFICATIONS FOR FIRE WALL PENETRATION DETAILS.
- EACH OVERCURRENT DEVICE SHALL HAVE ITS OWN NEUTRAL CONDUCTOR; NO SHARING ALLOWED.
- ALL ELECTRICAL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE 2011, FAA-STD-019e, AND FAA SPEC 1217F.
- ALL FLEXIBLE CONDUIT SHALL HAVE AN EXTERNAL GROUNDING JUMPER SIZED THE SAME AS THE INTERNAL EQUIPMENT GROUNDING CONDUCTOR.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																		
																		
										REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																		
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL LEGENDS, SYMBOLS AND NOTES																		
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN																		
REVIEWED BY		SUBMITTED BY BOB BODRAN				APPROVED BY MARK BEEKMAN												
		DESIGNED T.J.H.		ISSUED BY		DATE 6/7/2012		JCN 701374										
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-E000		REV								
		CHECKED T.J.H.																
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328										HEI JOB NUMBER: 11020.00								

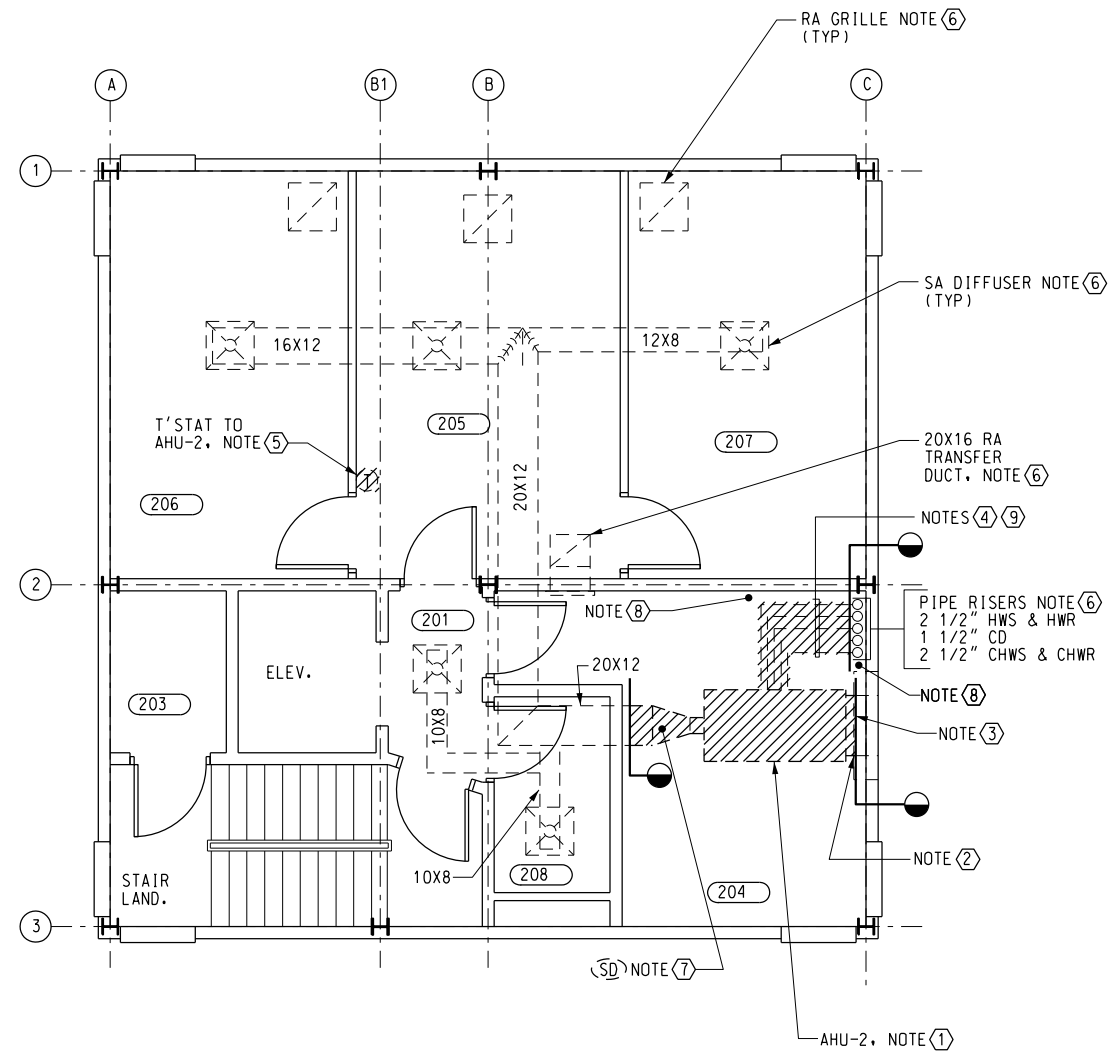


A diagram of a 1/4 inch scale bar. The bar is divided into four equal segments, each representing 1/16 inch. The first segment is black, the second is white, the third is black, and the fourth is white. A vertical line marks the zero point at the left end of the bar. Below the bar, the text "1/4" = 1" - 0"" is written.

- B. CONTRACTOR SHALL COMPLETELY REMOVE THE EXISTING PNEUMATIC HVAC CONTROL SYSTEM INCLUDING CONTROL PANELS, AIR COMPRESSOR, CONTROL SYSTEM AIR SUPPLY, AIR DRYER, PNEUMATIC TUBING, CONTROL WIRING, CONTROL CONDUITS, THERMOSTATS AND ALL ASSOCIATED CONTROL COMPONENTS. AIR COMPRESSOR SHALL BE STORED IN THE AREA DESIGNATED BY THE FAA RESIDENT ENGINEER AND SHALL REMAIN IN THE PROPERTY OF THE LOCAL FAA.
- B. CONTRACTOR SHALL REVIEW THE EXISTING CONTROL DRAWINGS AND ACTUAL PNEUMATIC TUBING AND CONTROL WIRING INSTALLATION PRIOR TO PERFORMING ANY WORK TO MINIMIZE DOWNTIME OF THE CONTROL SYSTEM THE EXISTING CONTROL DRAWINGS CAN BE OBTAINED FROM THE LOCAL FAA FACILITY.
- C. CONTRACTOR SHALL PERFORM AIR FLOW TEST AND RECORD THE ACTUAL AIR FLOW ON ALL EXISTING AIR OUTLETS IN TOWER PRIOR TO ANY HVAC DEMOLITION WORK. RESULTS SHALL BE RETAINED AND USED TO RESTORE THE SYSTEM TO ITS FORMER AIR BALANCE AT THE COMPLETION OF THE MECHANICAL WORK. THE ACTUAL AIR FLOW SHALL BE SUBMITTED TO THE FAA RESIDENT ENGINEER FOR REVIEW.
- D. FOR HVAC AND ELECTRICAL LEGEND, GENERAL NOTES AND SPECIAL NOTES, SEE DRAWINGS M000 AND E000.

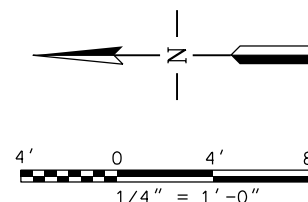
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DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL FIRST FLOOR PLAN - DEMOLITION																					
BLOUNTVILLE						TRI-CITIES REGIONAL AIRPORT (TRI)				TN											
REVIEWED BY		SUBMITTED BY					APPROVED BY														
		BOB BODRAN					MARK BEEKMAN														
		DESIGNED		NJ		ISSUED BY		DATE		6/7/2012	JCN 701374										
		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO													
		CHECKED		WHH																	
TRI-D-ATCT-D001																					
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328																					
HEI JOB NUMBER: 11020.00																					


- ① REMOVE EXISTING SUSPENDED AIR HANDLING UNIT INCLUDING MOTOR STARTER AND WIRING BACK TO DISCONNECT. ASSOCIATED CONTROLS, FLEXIBLE DUCT CONNECTIONS, OUTSIDE AIR AND RETURN AIR DAMPERS, UNIT HANGERS, DUCTWORK AND PIPING TO POINTS INDICATED.
- ② REMOVE EXISTING OUTSIDE AIR DUCT (APPROX. SIZE 30"x12") FROM UNIT TO WALL.
- ③ REMOVE EXISTING EXHAUST DAMPER (APPROX. SIZE 4'-6" WIDE BY 2'-0" HIGH) AND ASSOCIATED CONTROLS IN WALL BELOW OUTSIDE AIR INTAKE. COVER OPENING WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT.
- ④ REMOVE EXISTING CONDENSATE DRAIN PIPE, CHILLED AND HOT WATER PIPING (SUPPLY AND RETURN), INCLUDING VALVES, FITTINGS AND PIPE HANGERS. PROVIDE NEW CHILLED WATER AND HOT WATER ISOLATION VALVES NEAR THE PIPE RISERS.
- ⑤ REMOVE EXISTING THERMOSTAT, COVER AND ASSOCIATED CONTROLS. REPAIR WALL AS REQUIRED MATCHING THE EXISTING WALL CONSTRUCTION AND FINISHES.
- ⑥ EXISTING WORK AS SHOWN LIGHT DASHED WITHOUT HATCHING SHALL REMAIN.
- ⑦ REMOVE EXISTING DUCT-MOUNTED SMOKE DETECTOR ON SUPPLY AIR DUCT.
- ⑧ EXISTING CHEMICAL SHOT FEEDER PIPING FOR CHILLED WATER AND HOT WATER SYSTEMS SHALL REMAIN.
- ⑨ AT A TIME PERMITTED BY THE FAA RESIDENT ENGINEER, THE CONTRACTOR SHALL DRAIN THE SYSTEMS (CHILLED WATER AND HOT WATER) OVERNIGHT AND REPLACE ALL THE ISOLATION VALVES AT ONE TIME AND THEN REFILL THE SYSTEMS PRIOR TO CONTINUING WITH THE REMAINDER OF THE WORK.



1 SECOND FLOOR PLAN - DEMOLITION
D002 SCALE: 1/4" = 1'-0"

ROOM SCHEDULE	
201	HALL
203	CABLE SHAFT
204	MECHANICAL EQUIPMENT
205	SECRETARY & RECEPTIONIST
206	ATCT MANAGER
207	AREA MANAGER AUS
208	WOMEN'S TOILET



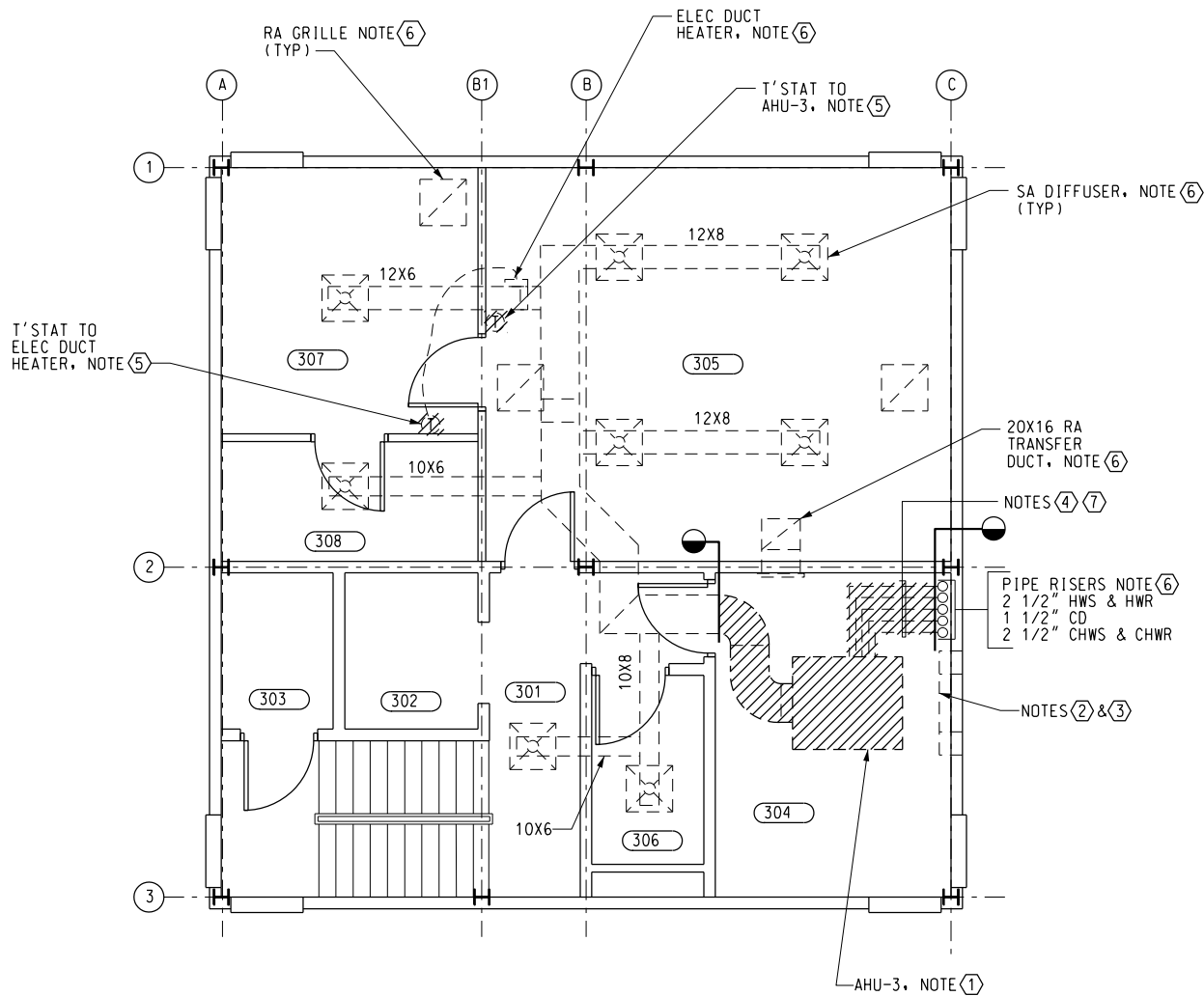
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.											
											
	REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD		
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION											
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL SECOND FLOOR PLAN - DEMOLITION											
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)					TN			
REVIEWED BY	SUBMITTED BY				APPROVED BY						
	BOB BODRAN				MARK BEEKMAN						
DESIGNED		NJ		ISSUED BY		DATE		7/7/2012		JCN	701374
DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-0002		REV	
CHECKED		WHH									

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ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

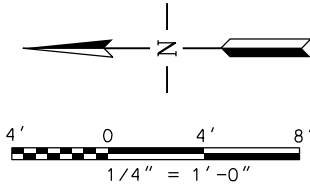
NOTES

- ① REMOVE EXISTING SUSPENDED AIR HANDLING UNIT INCLUDING MOTOR STARTER AND WIRING BACK TO DISCONNECT, ASSOCIATED CONTROLS, FLEXIBLE DUCT CONNECTIONS, UNIT HANGERS, DUCTWORK AND PIPING TO POINTS INDICATED.
- ② EXISTING OUTSIDE AIR BLANK-OFF IS TO REMAIN ABOVE EXISTING EXHAUST DAMPER.
- ③ REMOVE EXISTING EXHAUST DAMPER (APPROX. SIZE 4'-6" WIDE BY 2'-0" HIGH) AND ASSOCIATED CONTROLS IN WALL BELOW OUTSIDE AIR INTAKE. COVER OPENING WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT.
- ④ REMOVE EXISTING CONDENSATE DRAIN LINE, CHILLED AND HOT WATER PIPING (SUPPLY AND RETURN), INCLUDING VALVES, FITTINGS AND PIPE HANGERS. PROVIDE NEW CHILLED WATER AND HOT WATER ISOLATION VALVES NEAR THE PIPE RISERS.
- ⑤ REMOVE EXISTING THERMOSTAT, COVER AND ASSOCIATED CONTROLS. REPAIR WALL AS REQUIRED MATCHING THE EXISTING WALL CONSTRUCTION AND FINISHES.
- ⑥ EXISTING WORK AS SHOWN LIGHT DASHED WITHOUT HATCHING SHALL REMAIN.
- ⑦ AT A TIME PERMITTED BY THE FAA RESIDENT ENGINEER, THE CONTRACTOR SHALL DRAIN THE SYSTEMS (CHILLED WATER AND HOT WATER) OVERNIGHT AND REPLACE ALL THE ISOLATION VALVES AT ONE TIME AND THEN REFILL THE SYSTEMS PRIOR TO CONTINUING WITH THE REMAINDER OF THE WORK.

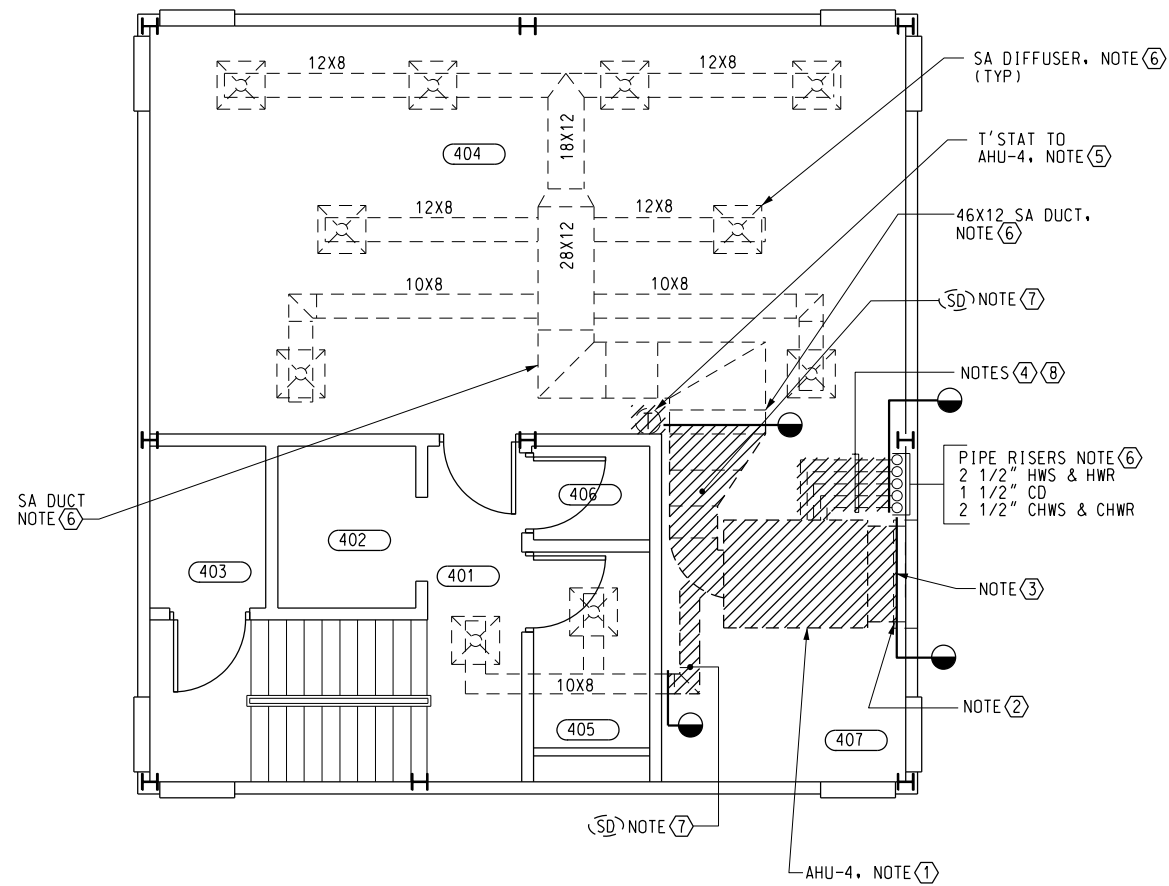


1 THIRD FLOOR PLAN - DEMOLITION
D003 SCALE: 1/4" = 1'-0"

ROOM SCHEDULE	
301	HALLWAY
302	ELEVATOR
303	CABLE SHAFT
304	MECHANICAL EQUIPMENT
305	ELECTRONIC EQUIPMENT
306	MEN'S TOILET
307	OAS
308	STORAGE ROOM



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
REV									
APPROVED DATE									
DESCRIPTION									
JCN									
REDLINE DATE									
APVD									
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL THIRD FLOOR PLAN - DEMOLITION									
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN									
REVIEWED BY		SUBMITTED BY				APPROVED BY			
		BOB BODRAN				MARK BEEKMAN			
		DESIGNED NJ				ISSUED BY			
		DRAWN GTC				DATE 6/7/2012			
		CHECKED WHH				JCN 701374			
		7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328				ATLANTA TERMINAL ENGINEERING CENTER			
		HEI JOB NUMBER: 11020.00				DRAWING NO TRI-D-ATCT-0003			
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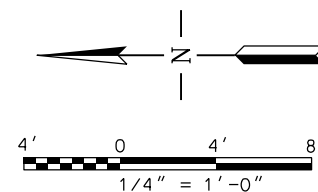


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0004

FOURTH FLOOR PLAN - DEMOLITION

SCALE: 1/4" = 1'-0"

ROOM SCHEDULE	
401	HALLWAY
402	ELEVATOR
403	CABLE CHASE
404	ELECTRONIC EQUIPMENT
405	LAVATORY
406	JANITOR
407	MECHANICAL EQUIPMENT



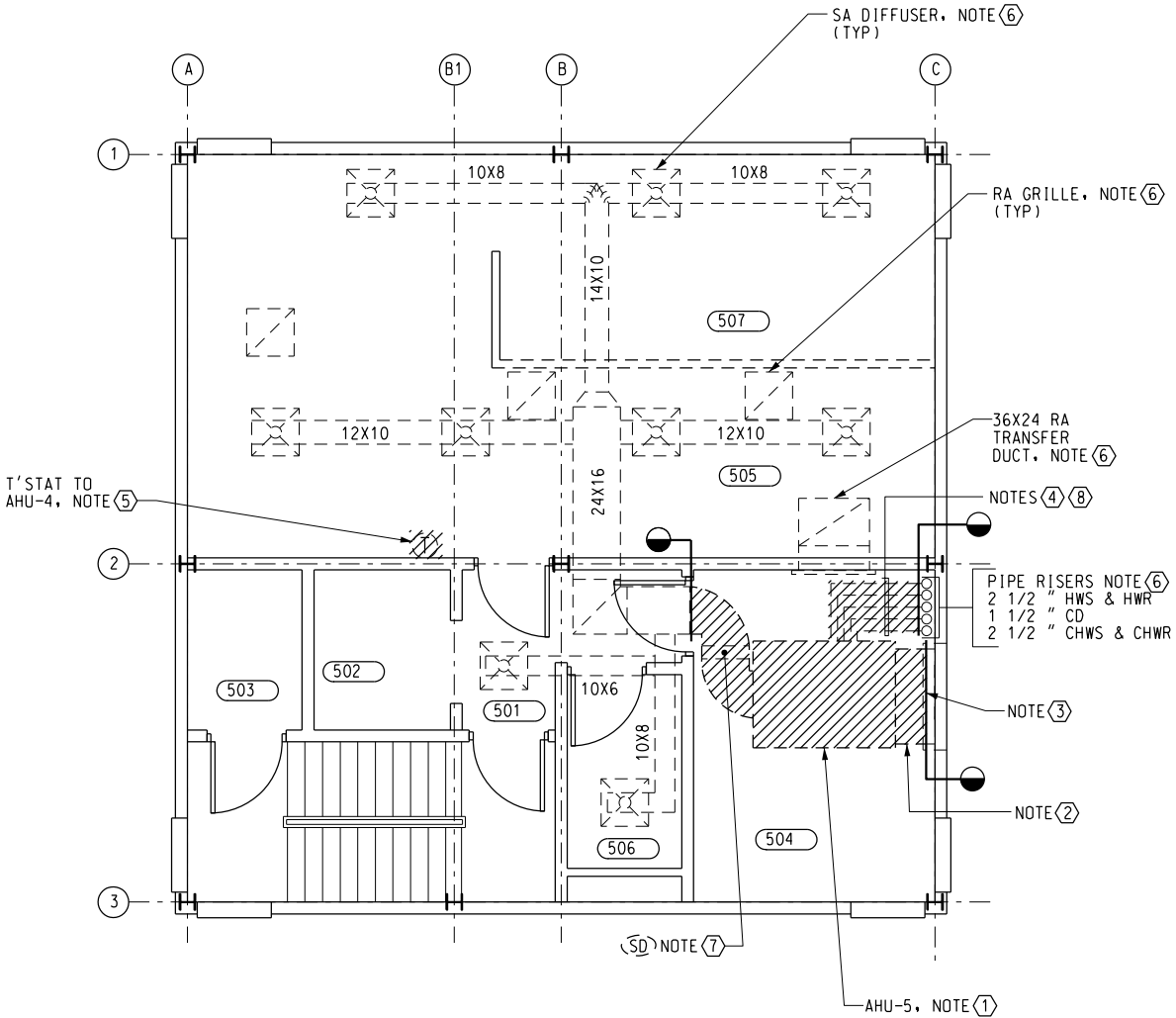
NOTES

- REMOVE EXISTING SUSPENDED AIR HANDLING UNIT INCLUDING MOTOR STARTER AND WIRING BACK TO DISCONNECT, ASSOCIATED CONTROLS, FLEXIBLE DUCT CONNECTIONS, OUTSIDE AIR AND RETURN AIR DAMPERS, UNIT HANGERS, DUCTWORK AND PIPING TO POINTS INDICATED.
- REMOVE EXISTING OUTSIDE AIR DUCT (APPROX. SIZE 50"X12") FROM UNIT TO WALL.
- REMOVE EXISTING EXHAUST DAMPER (APPROX. SIZE 4'-6" WIDE BY 2'-0" HIGH) AND ASSOCIATED CONTROLS IN WALL BELOW OUTSIDE AIR INTAKE. COVER OPENING WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT.
- REMOVE EXISTING CONDENSATE DRAIN LINE, CHILLED AND HOT WATER PIPING (SUPPLY AND RETURN), INCLUDING VALVES, FITTINGS AND PIPE HANGERS. PROVIDE NEW CHILLED WATER AND HOT WATER ISOLATION VALVES NEAR THE PIPE RISERS.
- REMOVE EXISTING THERMOSTAT, COVER AND ASSOCIATED CONTROLS. REPAIR WALL AS REQUIRED MATCHING THE EXISTING WALL CONSTRUCTION AND FINISHES.
- EXISTING WORK AS SHOWN LIGHT DASHED WITHOUT HATCHING SHALL REMAIN.
- REMOVE EXISTING DUCT-MOUNTED SMOKE DETECTOR ON SUPPLY AIR DUCT.
- AT A TIME PERMITTED BY THE FAA RESIDENT ENGINEER, THE CONTRACTOR SHALL DRAIN THE SYSTEMS (CHILLED AND HOT WATER) OVERNIGHT AND REPLACE ALL THE ISOLATION VALVES AT ONE TIME AND THEN REFILL THE SYSTEMS PRIOR TO CONTINUING WITH THE REMAINDER OF THE WORK.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.															
REV		APPROVED DATE		DESCRIPTION				JCN	REDLINE DATE						
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION															
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL FOURTH FLOOR PLAN - DEMOLITION															
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN															
REVIEWED BY		SUBMITTED BY				APPROVED BY									
		BOB BODRAN				MARK BEEKMAN									
		DESIGNED		ISSUED BY		DATE		JCN	701374						
		DRAWN		ATLANTA TERMINAL		DRAWING NO		REV							
		CHECKED		ENGINEERING CENTER		TRI-D-ATCT-0004									

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

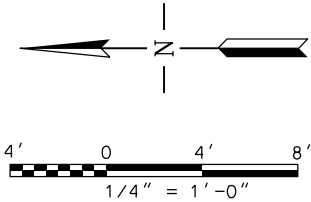


1 FIFTH FLOOR PLAN - DEMOLITION
D005 SCALE: 1/4" = 1'-0"

NOTES

- ① REMOVE EXISTING SUSPENDED AIR HANDLING UNIT INCLUDING MOTOR STARTER AND WIRING BACK TO DISCONNECT, ASSOCIATED CONTROLS, FLEXIBLE DUCT CONNECTIONS, OUTSIDE AIR AND RETURN AIR DAMPERS, UNIT HANGERS, DUCTWORK AND PIPING TO POINTS INDICATED.
- ② REMOVE EXISTING OUTSIDE AIR DUCT (APPROX. SIZE 50"x12") FROM UNIT TO WALL.
- ③ REMOVE EXISTING EXHAUST DAMPER (APPROX. SIZE 4'-6" WIDE BY 2'-0" HIGH) AND ASSOCIATED CONTROLS IN WALL BELOW OUTSIDE AIR INTAKE. COVER OPENING WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT.
- ④ REMOVE EXISTING CONDENSATE DRAIN LINE CHILLED AND HOT WATER PIPING (SUPPLY AND RETURN), INCLUDING VALVES, FITTINGS AND PIPE HANGERS. PROVIDE NEW CHILLED WATER AND HOT WATER ISOLATION VALVES NEAR THE PIPE RISERS.
- ⑤ REMOVE EXISTING THERMOSTAT, COVER AND ASSOCIATED CONTROLS. REPAIR WALL AS REQUIRED MATCHING THE EXISTING WALL CONSTRUCTION AND FINISHES.
- ⑥ EXISTING WORK AS SHOWN LIGHT DASHED WITHOUT HATCHING SHALL REMAIN.
- ⑦ REMOVE EXISTING DUCT-MOUNTED SMOKE DETECTOR ON SUPPLY AIR DUCT.
- ⑧ AT A TIME PERMITTED BY THE FAA RESIDENT ENGINEER, THE CONTRACTOR SHALL DRAIN THE SYSTEMS (CHILLED WATER AND HOT WATER) OVERNIGHT AND REPLACE ALL THE ISOLATION VALVES AT ONE TIME AND THEN REFILL THE SYSTEMS PRIOR TO CONTINUING WITH THE REMAINDER OF THE WORK.

ROOM SCHEDULE	
501	HALLWAY
502	ELEVATOR
503	CABLE SHAFT
504	MECHANICAL EQUIPMENT
505	TRACON
506	LAVATORY
507	TRACON MAINTENANCE



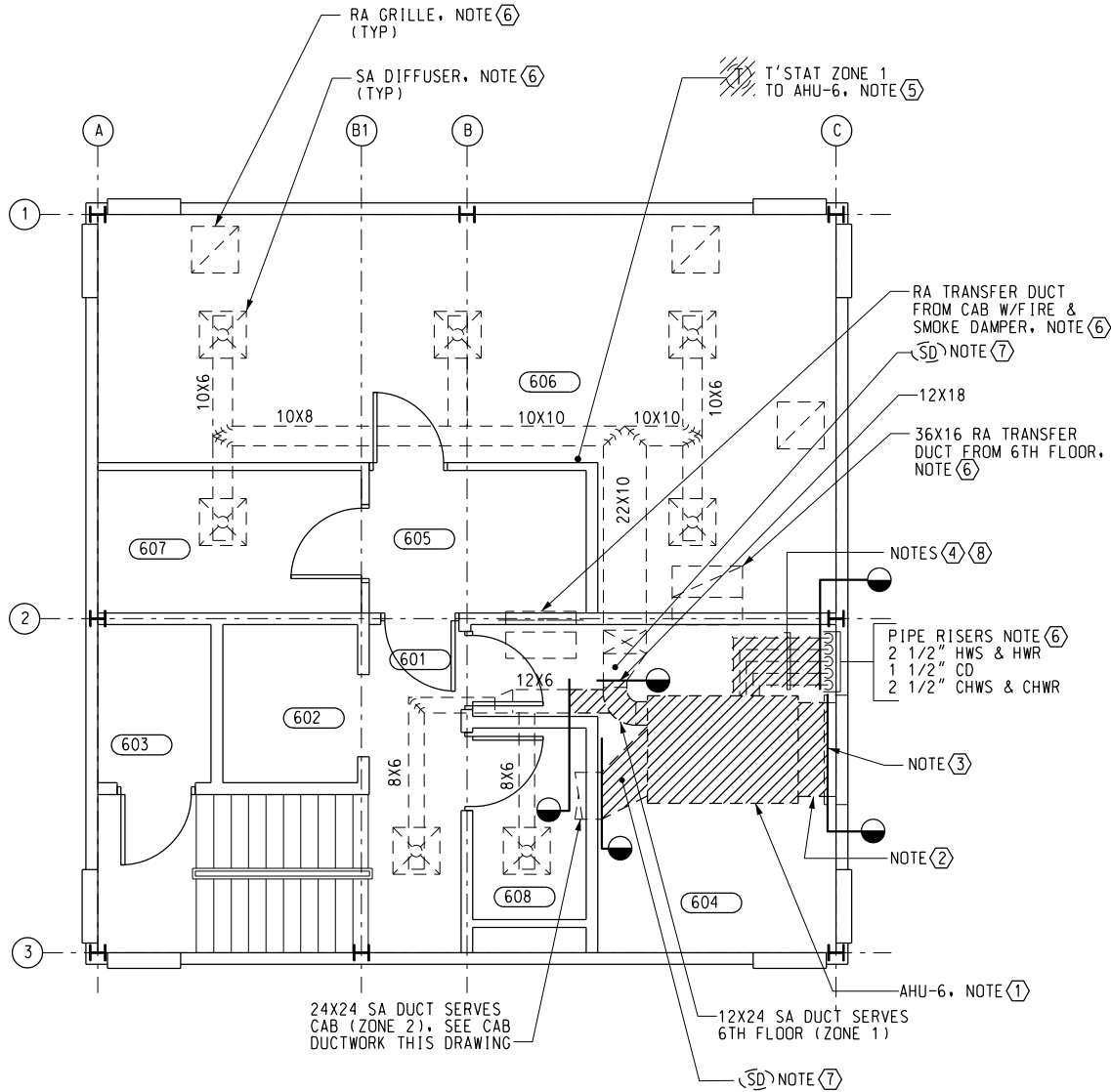
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328
HEI JOB NUMBER: 11020.00

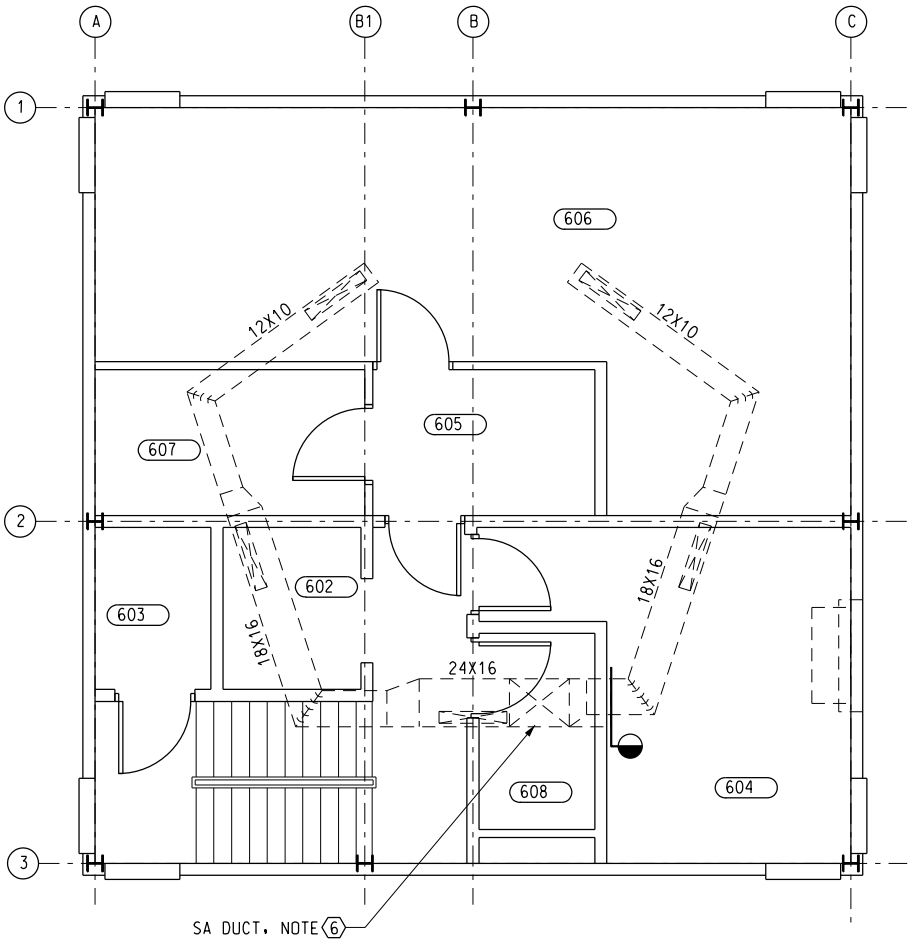
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DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL FIFTH FLOOR PLAN - DEMOLITION					
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN					
REVIEWED BY		SUBMITTED BY		APPROVED BY	
		BOB BODRAN		MARK BEEKMAN	
		DESIGNED NJ	ISSUED BY	DATE 6/7/2012	JCN 701374
		DRAWN GTC	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO	
		CHECKED WHH		TRI-D-ATCT-0005	
				REV	

NOTES

- ① REMOVE EXISTING SUSPENDED MULTIZONE AIR HANDLING UNIT INCLUDING MOTOR STARTER AND WIRING BACK TO DISCONNECT, ASSOCIATED CONTROLS, FLEXIBLE DUCT CONNECTIONS, OUTSIDE AIR AND RETURN AIR DAMPERS, UNIT HANGERS, DUCTWORK AND PIPING TO POINTS INDICATED.
- ② REMOVE EXISTING OUTSIDE AIR DUCT (APPROX. SIZE 50"x20") FROM UNIT TO WALL.
- ③ REMOVE EXISTING EXHAUST DAMPER (APPROX. SIZE 4'-6" WIDE BY 3'-0" HIGH) AND ASSOCIATED CONTROLS IN WALL BELOW OUTSIDE AIR INTAKE. COVER OPENING WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT.
- ④ REMOVE EXISTING CONDENSATE DRAIN LINE, CHILLED AND HOT WATER PIPING (SUPPLY AND RETURN), INCLUDING VALVES, FITTINGS AND PIPE HANGERS. PROVIDE NEW CHILLED WATER AND HOT WATER ISOLATION VALVES NEAR THE PIPE RISERS.
- ⑤ REMOVE EXISTING THERMOSTAT, COVER AND ASSOCIATED CONTROLS. REPAIR WALL AS REQUIRED MATCHING THE EXISTING WALL CONSTRUCTION AND FINISHES.
- ⑥ EXISTING WORK AS SHOWN LIGHT DASHED WITHOUT HATCHING SHALL REMAIN.
- ⑦ REMOVE EXISTING DUCT-MOUNTED SMOKE DETECTOR ON SUPPLY AIR DUCT.
- ⑧ AT A TIME PERMITTED BY THE FAA RESIDENT ENGINEER, THE CONTRACTOR SHALL DRAIN THE SYSTEMS (CHILLED WATER AND HOT WATER) OVERNIGHT AND REPLACE ALL THE ISOLATION VALVES AT ONE TIME AND THEN REFILL THE SYSTEMS PRIOR TO CONTINUING WITH THE REMAINDER OF THE WORK.



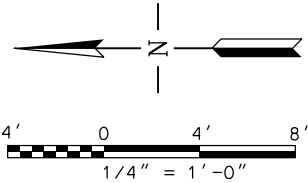
SIXTH FLOOR DUCTWORK



CAB DUCTWORK

1 SIXTH FLOOR PLAN - DEMOLITION
D006 SCALE: 1/4" = 1'-0"

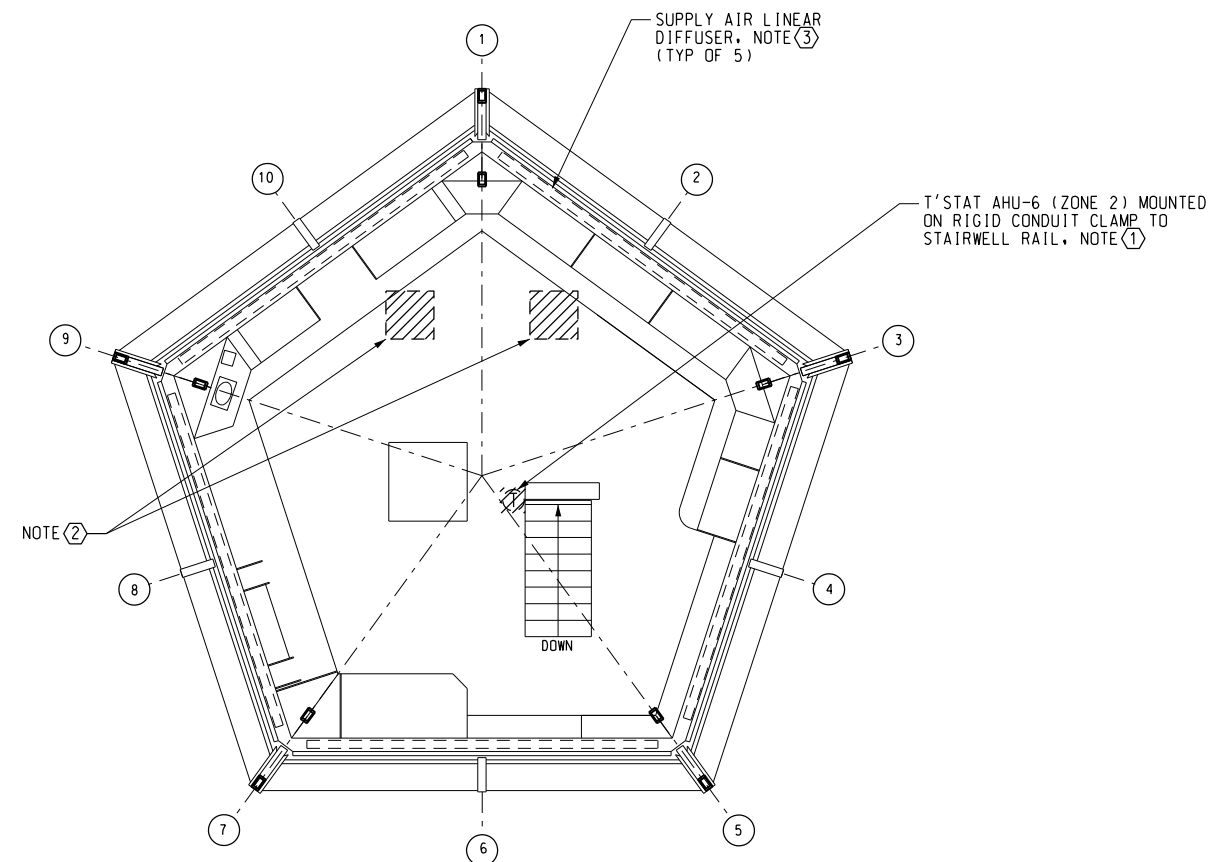
ROOM SCHEDULE	
601	HALLWAY
602	ELEVATOR
603	CABLE CHASE
604	MECHANICAL EQUIPMENT
605	STAIRWAY
606	READY ROOM
607	TEL CO
608	LAVATORY



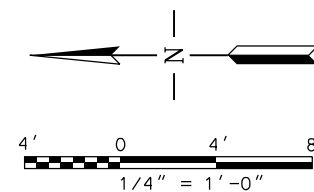
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																																	
<div><div><div>HARTRAMPF</div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00</div></div><div><table><tr><td>DESIGNED</td><td>NJ</td><td>ISSUED BY</td><td>ATLANTA TERMINAL ENGINEERING CENTER</td><td>DATE</td><td>6/7/2012</td><td>JCN</td><td>701374</td></tr><tr><td>DRAWN</td><td>GTC</td><td>DRAWING NO</td><td colspan="2">TRI-D-ATCT-D006</td><td>REV</td><td colspan="2"></td></tr><tr><td>CHECKED</td><td>WHH</td><td colspan="5"></td><td></td></tr></table></div></div>										DESIGNED	NJ	ISSUED BY	ATLANTA TERMINAL ENGINEERING CENTER	DATE	6/7/2012	JCN	701374	DRAWN	GTC	DRAWING NO	TRI-D-ATCT-D006		REV			CHECKED	WHH						
DESIGNED	NJ	ISSUED BY	ATLANTA TERMINAL ENGINEERING CENTER	DATE	6/7/2012	JCN	701374																										
DRAWN	GTC	DRAWING NO	TRI-D-ATCT-D006		REV																												
CHECKED	WHH																																
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL SIXTH FLOOR PLAN - DEMOLITION BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN																																	
REVIEWED BY		SUBMITTED BY BOB BODRAN			APPROVED BY MARK BEEKMAN																												

NOTES


- ① REMOVE EXISTING THERMOSTAT, COVER, RIGID CONDUIT MOUNTING ASSEMBLY AND ASSOCIATED CONTROLS.
- ② REMOVE EXISTING CEILING MOUNTED AIR CLEANER (SMOKEETER), WIRING, ASSOCIATED CONTROLS AND SUPPORTS. REPLACE NEW CEILING TILES MATCHING THE EXISTING TYPE AND FINISHES.
- ③ EXISTING WORK AS SHOWN LIGHT DASHED LINES WITHOUT HATCHING SHALL REMAIN.



1 CAB FLOOR PLAN - DEMOLITION
0007 SCALE: 1/4" = 1'-0"



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.			
REV	APPROVED DATE	DESCRIPTION	JCN REDLINE DATE APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION			
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL CAB FLOOR PLAN - DEMOLITION			
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI) TN	
REVIEWED BY	SUBMITTED BY		APPROVED BY
	BOB BODRAN		MARK BEEKMAN
	DESIGNED NJ	ISSUED BY	DATE 6/7/2012 JCN 701374
	DRAWN GTC	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO
	CHECKED WHH		TRI-D-ATCT-0007
			REV

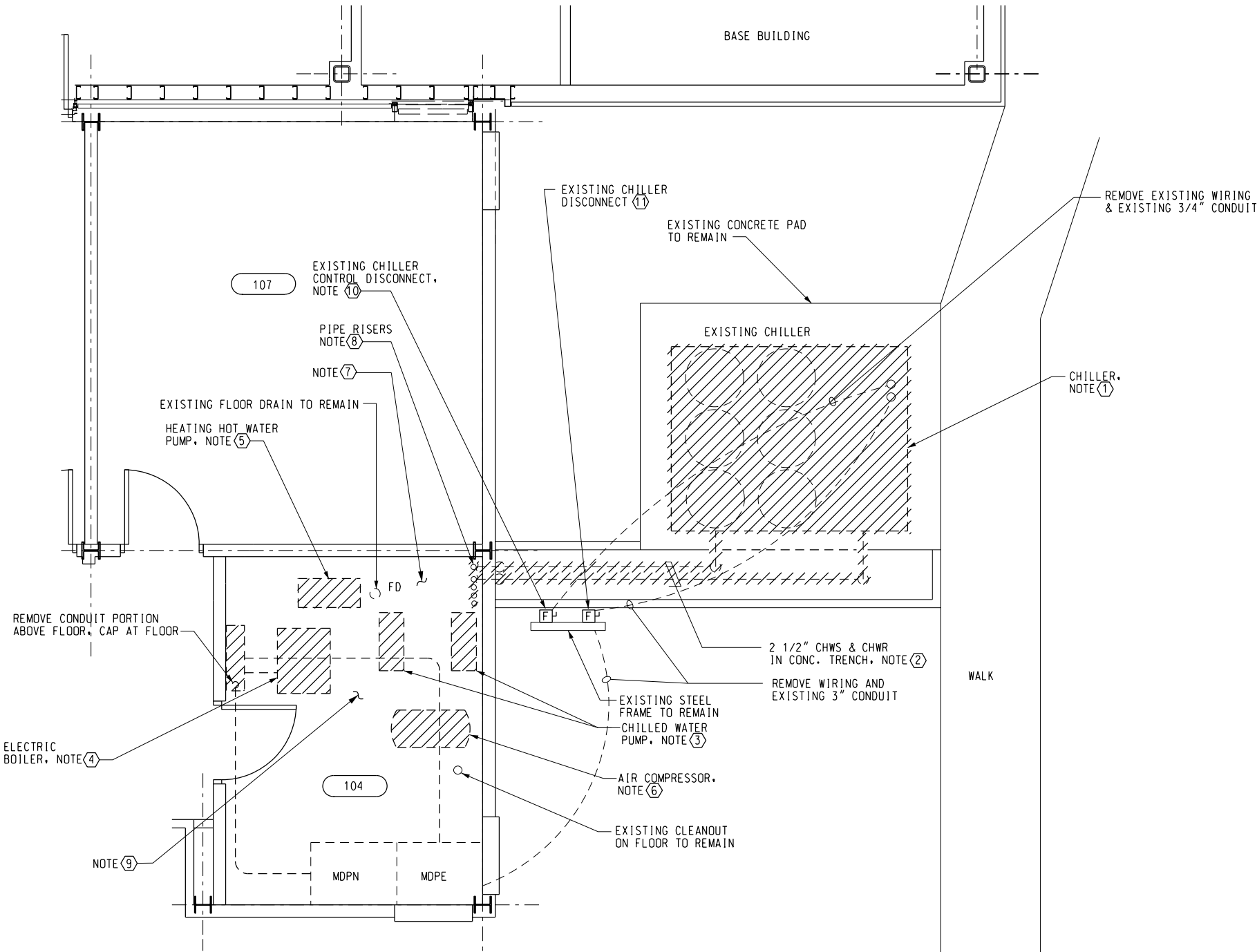


7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

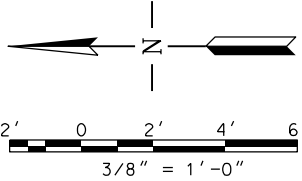
NOTES


- 1 REMOVE EXISTING AIR COOLED CHILLER AND ASSOCIATED CONTROL.
- 2 REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN PIPING, VALVES, INSULATION AND PIPE SUPPORTS.
- 3 REMOVE EXISTING CHILLED WATER CIRCULATING PUMP, EXPANSION TANK, MOTOR STARTER, DISCONNECT, WIRING, VALVES, PIPING, PIPE HANGERS AND ASSOCIATED CONTROLS.
- 4 REMOVE EXISTING ELECTRIC BOILER, ASSOCIATED PIPING, WIRING AND CONTROLS.
- 5 REMOVE EXISTING HEATING HOT WATER CIRCULATING PUMP, EXPANSION TANK, VALVES, PIPING, MOTOR STARTER, DISCONNECT, WIRING, PIPE HANGERS AND ASSOCIATED CONTROLS.
- 6 REMOVE EXISTING AIR COMPRESSOR, AIR DRYER, MOTOR STARTER, DISCONNECT, WIRING, AND ENTIRE PNEUMATIC HVAC CONTROL SYSTEM. AIR COMPRESSOR AND DRYER SHALL BE REMOVED IN MANNER TO PREVENT DAMAGE AND STORE IN THE AREA DESIGNATED BY FAA RESIDENT ENGINEER AND SHALL REMAIN THE PROPERTY OF THE LOCAL FAA.
- 7 CONTRACTOR SHALL VERIFY THE LOCATIONS OF EXISTING CHILLED WATER AND HEATING HOT WATER SUPPLY AND RETURN PIPING THAT SERVES EXISTING AIR HANDLER AHU-BB. EXISTING PIPING SHALL BE REMOVED AS REQUIRED FOR NEW PIPE INSTALLATION IN THE MECHANICAL ROOM.
- 8 EXISTING 2 1/2" CHILLED WATER, 2 1/2" HEATING HOT WATER SUPPLY AND RETURN PIPING AND 1 1/2" CONDENSATE DRAIN LINE SHALL BE REMOVED UP TO PIPE RUNOUTS SERVING EXISTING AIR HANDLER AHU-1.
- 9 GENERAL: REMOVE ALL EXISTING CHILLED WATER AND HEATING HOT WATER PIPING INCLUDING VALVES, INSULATION AND PIPE HANGERS IN THE MECHANICAL ROOM TO POINTS INDICATED (SEE NOTE 8), UNLESS OTHERWISE NOTED.
- 10 REMOVE EXISTING CONTROL DISCONNECT.
- 11 REMOVE EXISTING CHILLER DISCONNECT.



1 ENLARGED FIRST FLOOR MECHANICAL ROOM PLAN - DEMOLITION
D008 SCALE: 3/8" = 1'-0"

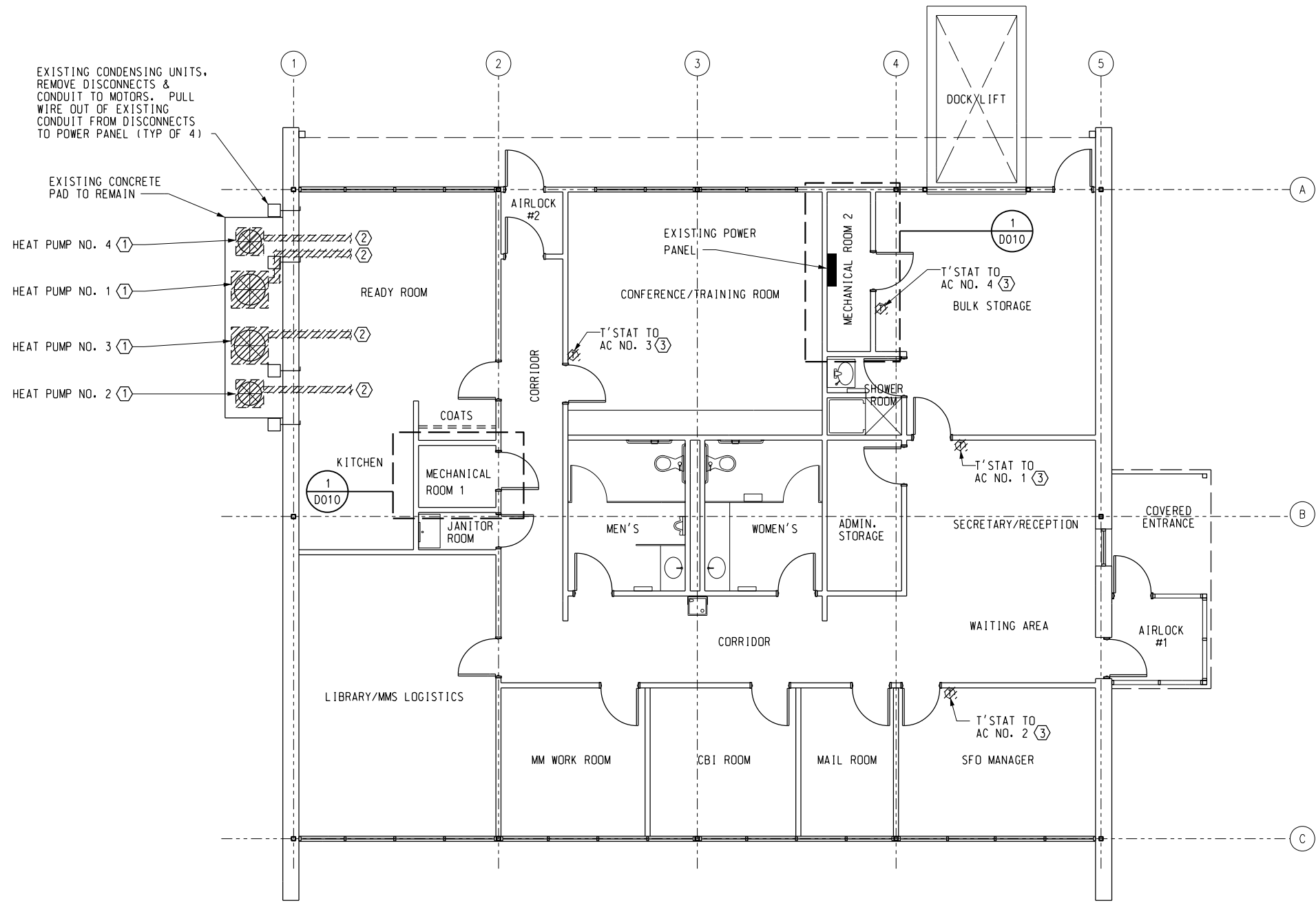
ROOM SCHEDULE	
104	MECHANICAL EQUIPMENT
107	AF RADAR UNIT SUPERVISOR



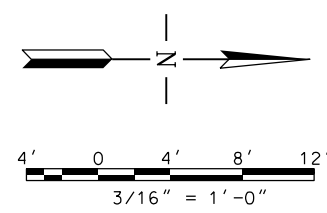
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																																																																																																		
<table><tr><td>REV</td><td>APPROVED DATE</td><td colspan="4">DESCRIPTION</td><td>JCN</td><td>REDLINE DATE</td><td>APVD</td></tr><tr><td colspan="10">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</td></tr><tr><td colspan="10">TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL ENLARGED 1ST FLOOR MECHANICAL ROOM PLAN-DEMOLITION BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN</td></tr><tr><td colspan="2">REVIEWED BY</td><td colspan="4">SUBMITTED BY</td><td colspan="4">APPROVED BY</td></tr><tr><td colspan="2"></td><td colspan="4">BOB BODRAN</td><td colspan="4">MARK BEEKMAN</td></tr><tr><td colspan="2">DESIGNED</td><td colspan="2">NJ</td><td colspan="2">ISSUED BY</td><td colspan="2">DATE</td><td colspan="2">JCN</td></tr><tr><td colspan="2">DRAWN</td><td colspan="2">GTC</td><td colspan="2">ATLANTA TERMINAL ENGINEERING CENTER</td><td colspan="2">6/7/2012</td><td colspan="2">701374</td></tr><tr><td colspan="2">CHECKED</td><td colspan="2">WHH</td><td colspan="2"></td><td colspan="2">DRAWING NO</td><td colspan="2">REV</td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2">TRI-D-ATCT-0008</td><td colspan="2"></td></tr></table>										REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD	DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION										TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL ENLARGED 1ST FLOOR MECHANICAL ROOM PLAN-DEMOLITION BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN										REVIEWED BY		SUBMITTED BY				APPROVED BY						BOB BODRAN				MARK BEEKMAN				DESIGNED		NJ		ISSUED BY		DATE		JCN		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012		701374		CHECKED		WHH				DRAWING NO		REV								TRI-D-ATCT-0008			
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<div><p>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00</p></div>																																																																																																		

NOTES

- ① REMOVE EXISTING OUTDOOR HEAT PUMP UNIT INCLUDING WIRING BACK TO DISCONNECT, REFRIGERANT LINES AND ASSOCIATED CONTROLS.
- ② REMOVE EXISTING REFRIGERANT LINES FROM INDOOR AC UNITS TO OUTDOOR HEAT PUMPS. ABANDON VERTICAL PIPING IN FINISHED WALL. SEAL OPENINGS IN EXTERIOR WALL WEATHERTIGHT.
- ③ REMOVE EXISTING THERMOSTAT, COVER AND ASSOCIATED CONTROLS. REPAIR WALL AS REQUIRED MATCHING THE EXISTING WALL CONSTRUCTION AND FINISHES.
- ④ FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING NO. M000.



1 AFSFO BUILDING PLAN - DEMOLITION
D009 SCALE: 3/16" = 1'-0"

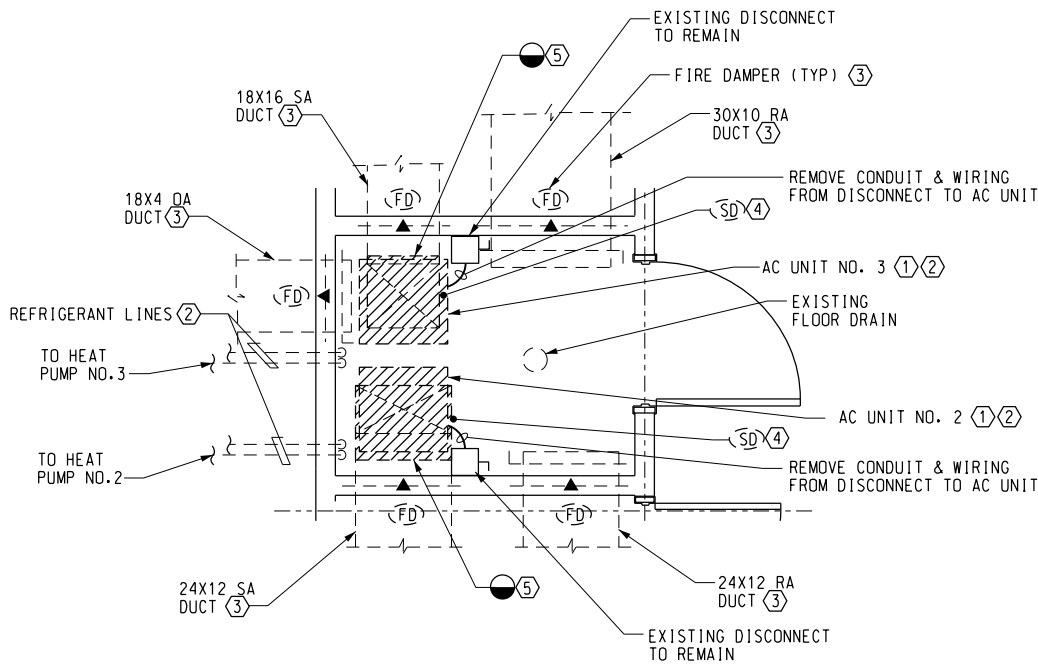
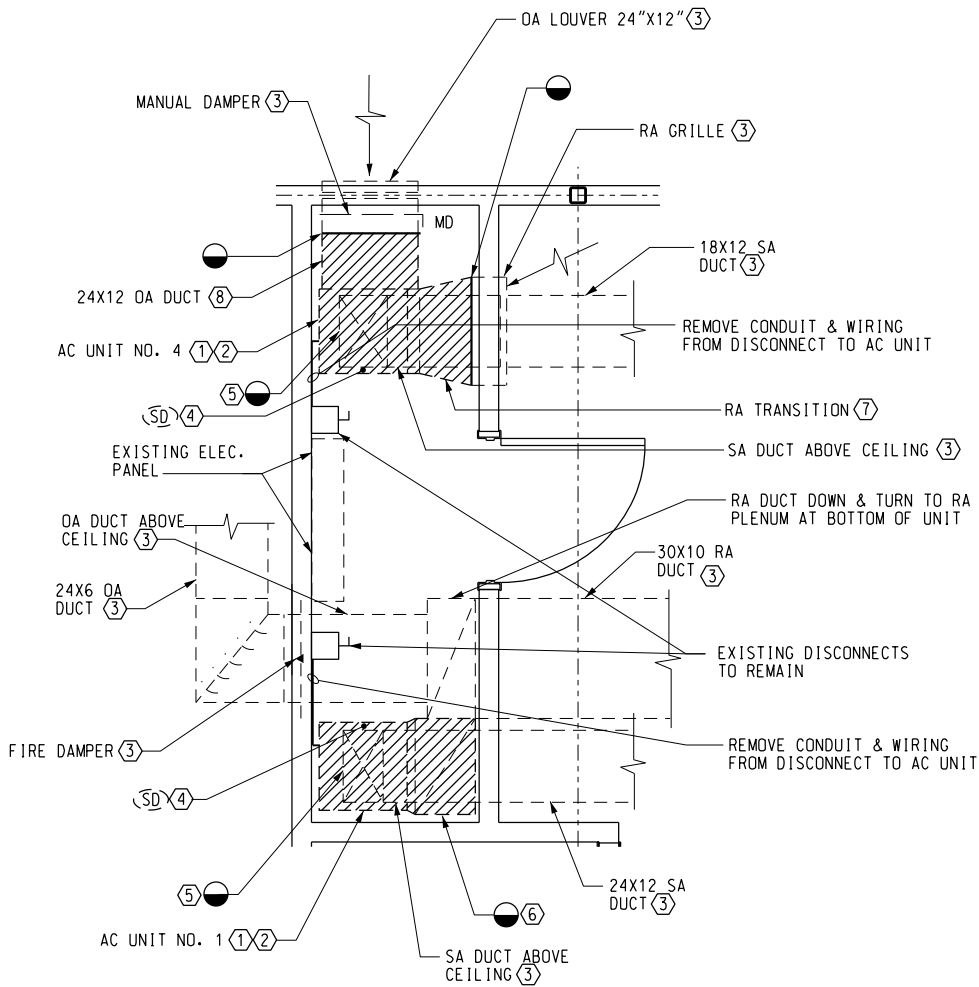


SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.

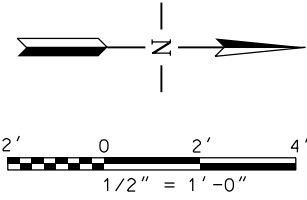
REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL AFSFO BUILDING PLAN - DEMOLITION					
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN					
REVIEWED BY		SUBMITTED BY		APPROVED BY	
		BOB BODRAN		MARK BEEKMAN	
DESIGNED		ISSUED BY		DATE	
NJ		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012	
DRAWN		GTC		JCN	
CHECKED		WHH		701374	
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328				DRAWING NO	
HEI JOB NUMBER: 11020.00				TRI-D-ATCT-0009	

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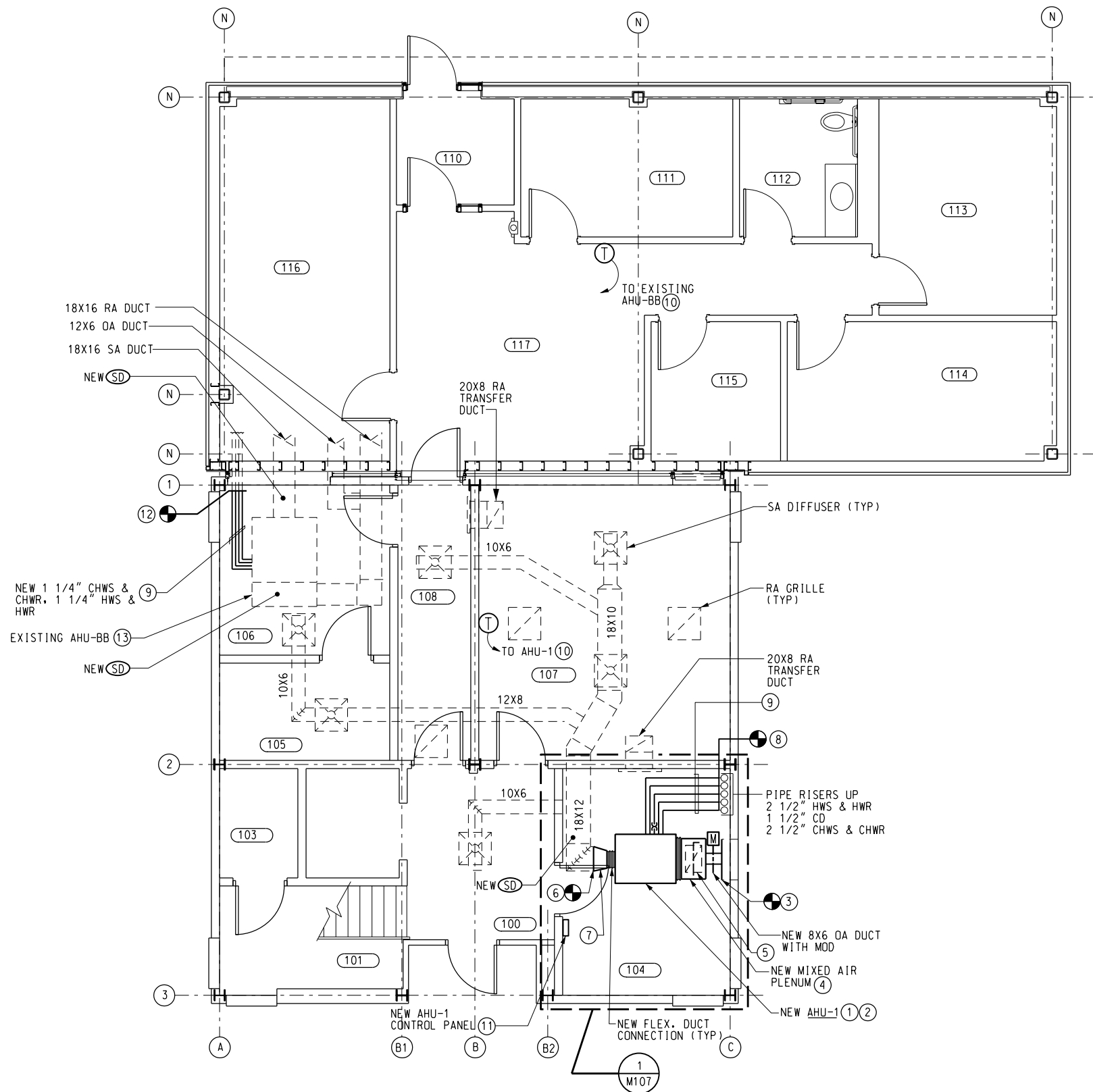
- ① REMOVE EXISTING UPFLOW VERTICAL FAN COIL UNIT INCLUDING WIRING BACK TO DISCONNECT, REFRIGERANT LINES, STEEL SUPPORT FRAME, CONDENSATE DRAIN LINE, CONDENSATE PUMP (UNITS NO. 1 & 4), FLEXIBLE CONNECTION, ASSOCIATED CONTROLS AND DUCTWORK TO POINTS INDICATED.
- ② REMOVE EXISTING REFRIGERANT LINES FROM INDOOR FAN COIL UNIT TO OUTDOOR HEAT PUMP UNIT.
- ③ EXISTING WORK AS SHOWN LIGHT DASHED WITHOUT HATCHING SHALL REMAIN.
- ④ REMOVE EXISTING DUCT-MOUNTED SMOKE DETECTOR ON SUPPLY AIR DUCT FROM EACH FAN COIL UNIT. IT SHALL BE STORED AND REUSED FOR NEW INSTALLATION. CONTRACTOR SHALL VERIFY THE FUNCTIONALITY OF EXISTING SMOKE DETECTOR AND REPORT TO THE FAA RESIDENT ENGINEER.
- ⑤ REMOVE EXISTING SUPPLY AIR DUCT FROM TOP OF UNIT INCLUDING FLEXIBLE CONNECTION AND A TRANSITION. EXISTING 90 DEGREE ELBOW ABOVE TRANSITION SHALL REMAIN.
- ⑥ REMOVE EXISTING RETURN AIR DUCT FROM BOTTOM OF UNIT INCLUDING FLEXIBLE CONNECTION, PLENUM AND DUCTWORK, EXISTING 90 DEGREE ELBOW ABOVE TRANSITION SHALL REMAIN.
- ⑦ REMOVE EXISTING RETURN AIR DUCT FROM BOTTOM OF UNIT INCLUDING FLEXIBLE CONNECTION, PLENUM AND TRANSITION TO POINT INDICATED.
- ⑧ REMOVE EXISTING OUTDOOR AIR DUCT FROM RETURN AIR PLENUM TO POINT INDICATED.
- ⑨ FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING NO. M000.



1 ENLARGED MECHANICAL ROOM PLANS - DEMOLITION
D010 SCALE: 1/2" = 1'-0"

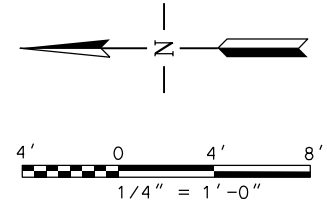


SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
<div><div>HARTRAMPF</div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00</div></div>									
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL/ELECTRICAL ENLARGED MECHANICAL ROOM PLANS - DEMOLITION									
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN									
REVIEWED BY		SUBMITTED BY BOB BODRAN				APPROVED BY MARK BEEKMAN			
		DESIGNED NJ		ISSUED BY		DATE 6/7/2012		JCN 701374	
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		REV	
		CHECKED WHH				TRI-D-ATCT-0010			



1 FIRST FLOOR PLAN - HVAC
M100 SCALE: 1/4" = 1'-0"

ROOM SCHEDULE	
100	ENTRY
101	STAIRWAY & STORAGE
103	CABLE PIT
104	MECHANICAL EQUIPMENT
105	ELEVATOR MACHINE ROOM
106	STORAGE
107	AF RADAR UNIT SUPERVISOR
108	HALLWAY
110	VESTIBULE
111	OAS
112	RESTROOM
113	A.T. MANAGER
114	CB1
115	COPY ROOM
116	CONFERENCE ROOM
117	SECRETARY



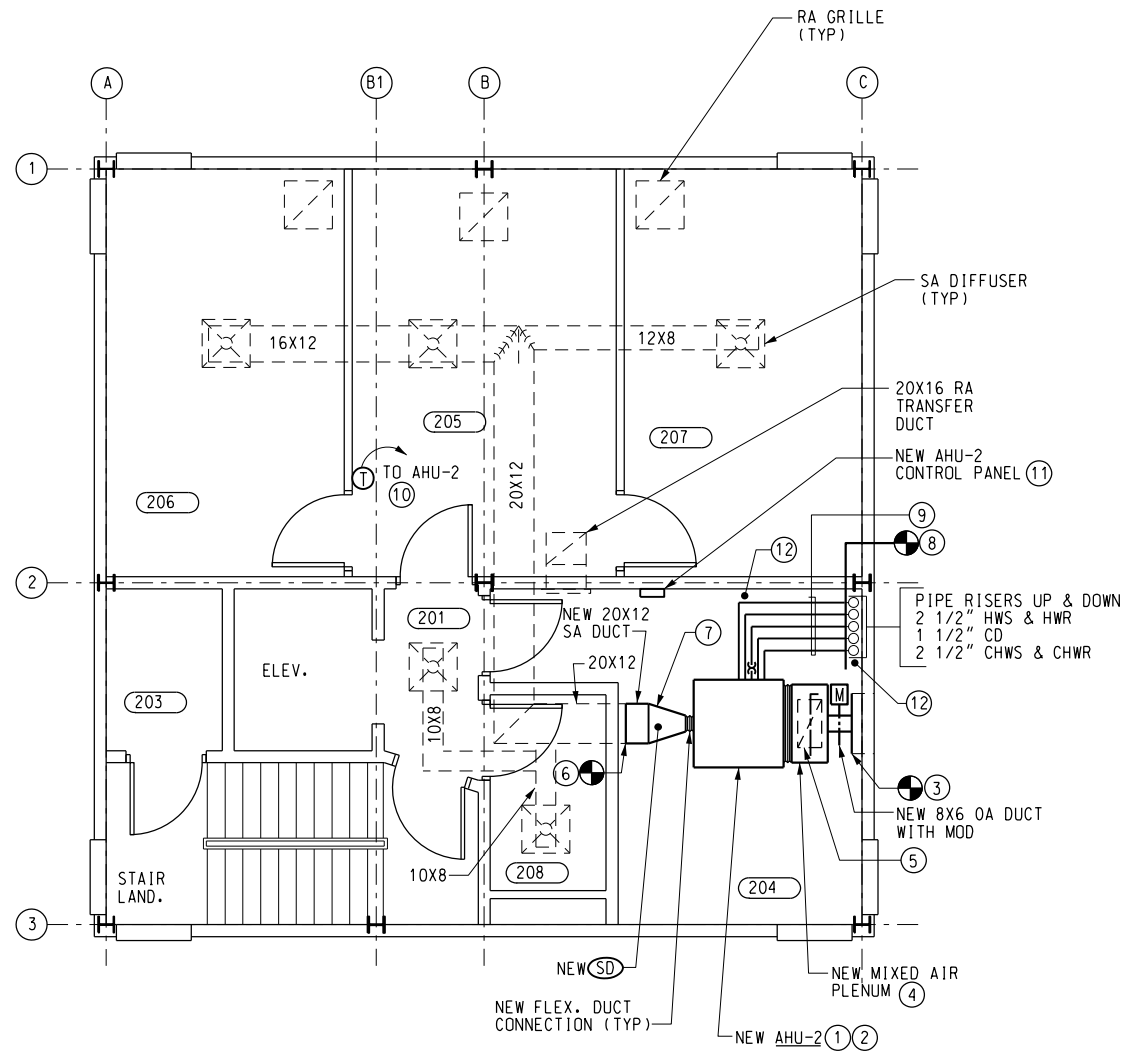
NOTES

- 1 PROVIDE UNIT OPERATING AND SERVICE CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS.
- 2 PROVIDE NEW CONDENSATE TRAP AT THE UNIT. ROUTE CONDENSATE DRAIN AND CONNECT TO EXISTING CONDENSATE DRAIN PIPING AS INDICATED. INCREASE SIZE IF NEEDED AT THE RISER CONNECTION. CONDENSATE DRAIN LINE SIZE SHALL BE UNIT CONNECTION SIZE (1" MINIMUM).
- 3 COVER EXISTING OUTSIDE AIR OPEN ENDED DUCT WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIR TIGHT. PROVIDE AN OPENING FOR NEW 8X6 OUTSIDE AIR DUCT CONNECTION.
- 4 PROVIDE NEW MIXED AIR PLENUM 16" LONG WITH FLEXIBLE DUCT CONNECTION, FULL SIZE OF UNIT CONNECTION.
- 5 PROVIDE NEW RETURN AIR DUCT OPEN END WITH MANUAL DAMPER (OPENING SIZE 20"X12") AT BOTTOM OF PLENUM.
- 6 CONNECT NEW SUPPLY AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.
- 7 PROVIDE NEW TRANSITION WITH FLEXIBLE DUCT CONNECTION FROM FULL SIZE OF UNIT CONNECTION TO EXISTING DUCT SIZE.
- 8 CONNECT NEW CHILLED WATER SUPPLY AND RETURN, HEATING HOT WATER SUPPLY AND RETURN PIPING AND CONDENSATE DRAIN LINE TO EXISTING PIPING AT THIS APPROXIMATE LOCATION. IT MAY REQUIRE PIPE REDUCER AT EACH CONNECTION.
- 9 FOR NEW CHILLED WATER AND HOT WATER COIL PIPING TO UNIT, SEE DETAIL 1/M600.
- 10 PROVIDE NEW WALL MOUNTED THERMOSTAT.
- 11 PROVIDE NEW DDC PANEL ON WALL. COORDINATE LOCATION WITH THE FAA RESIDENT ENGINEER.
- 12 CONNECT PIPING TO EXISTING AT THIS APPROXIMATE LOCATION. PIPE SIZE SHALL MATCH THE EXISTING.
- 13 REPLACE EXISTING CONTROL SYSTEM WITH NEW DDC SYSTEM. SEE DRAWINGS M810 AND M811.

GENERAL NOTES (FOR DRAWINGS M100 THRU M107)

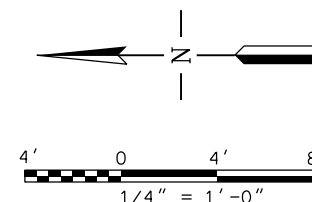
- A. ALL NEW EXPOSED DUCTWORK AND PLENUM LOCATED IN THE MECHANICAL EQUIPMENT ROOM SHALL BE INTERNALLY LINED AS PER SPECIFICATIONS, UNLESS OTHERWISE NOTED. NEW EXPOSED OUTDOOR AIR DUCTWORK SHALL BE INSULATED WITH MINERAL-FIBER BOARD AS PER SPECIFICATIONS.
- B. CLEANING OF EXISTING DUCTWORK SHALL BE PERFORMED WHERE THE AREAS ACCESSIBLE DURING THE DUCT DEMOLITION AND THE REPLACEMENT OF EQUIPMENT AND DUCTWORK WITHIN THE MECHANICAL EQUIPMENT ROOM.
- C. FOR HVAC LEGEND, GENERAL NOTES AND SPECIAL NOTES, SEE DRAWING M000.
- D. FOR HVAC CONTROLS, SEE DRAWINGS M800 THRU M811.
- E. FOR CHILLED WATER AND HEATING HOT WATER PIPING FLOW DIAGRAMS, SEE DRAWINGS M700 AND M701.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
<div><div><div>HARTRAMPF</div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HE1 JOB NUMBER: 11020.00</div></div><div><div>REVIEWED BY</div><div>DESIGNED</div><div>DRAWN</div><div>CHECKED</div></div><div><div>SUBMITTED BY</div><div>NJ</div><div>GTC</div><div>WHH</div></div><div><div>APPROVED BY</div><div>ISSUED BY</div><div>DATE</div><div>JCN</div><div>701374</div></div><div><div>MARK BEEKMAN</div><div>ATLANTA TERMINAL ENGINEERING CENTER</div><div>6/7/2012</div><div>TRI-D-ATCT-M100</div></div></div>									
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL FIRST FLOOR PLAN - HVAC BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN									
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD



1 SECOND FLOOR PLAN - HVAC
M101 SCALE: 1/4" = 1'-0"

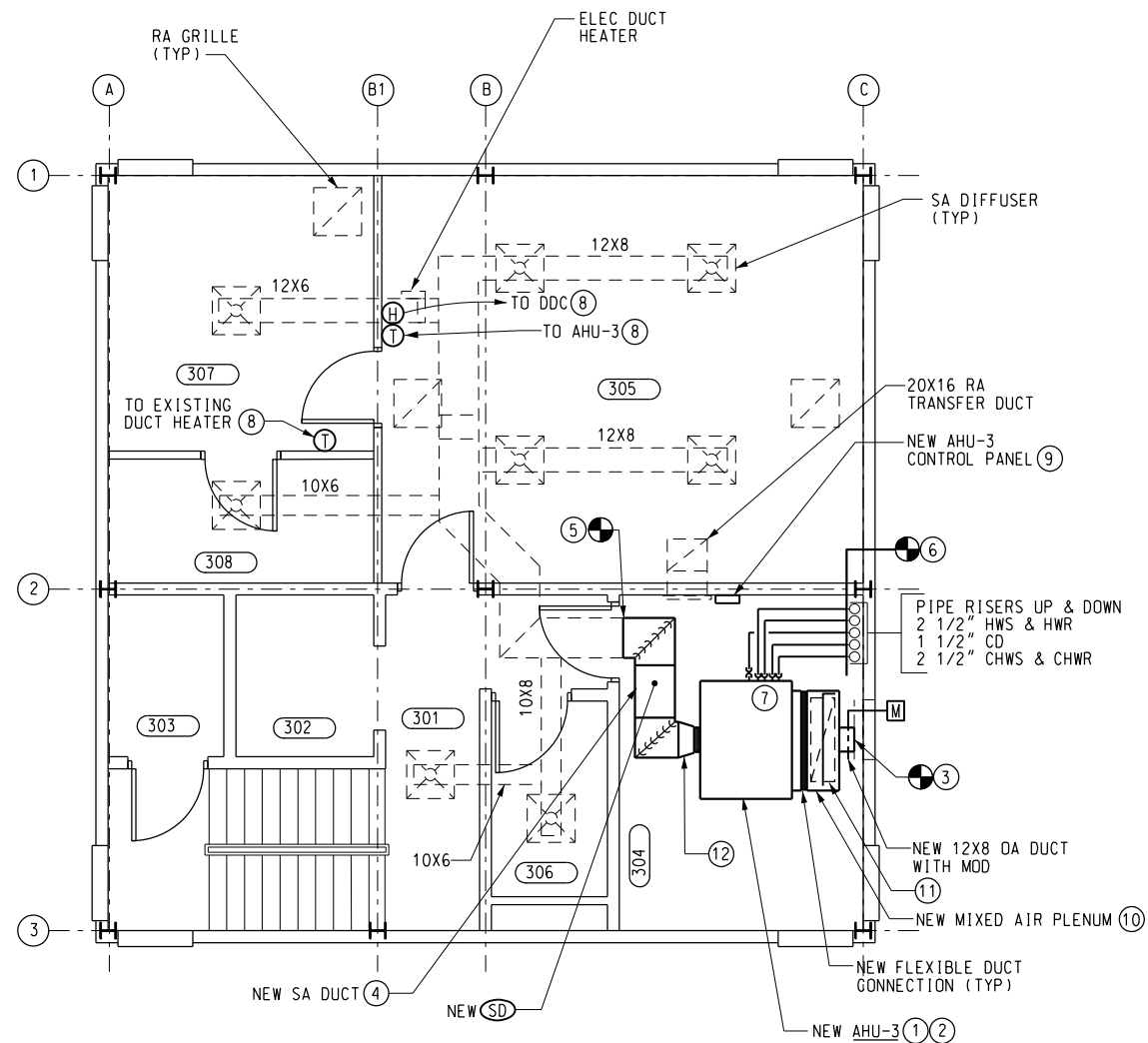
ROOM SCHEDULE	
201	HALL
203	CABLE SHAFT
204	MECHANICAL EQUIPMENT
205	SECRETARY & RECEPTIONIST
206	ATCT MANAGER
207	AREA MANAGER AUS
208	WOMEN'S TOILET



NOTES

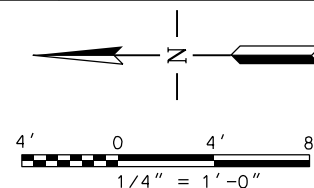
- PROVIDE UNIT OPERATING AND SERVICE CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE NEW CONDENSATE TRAP AT THE UNIT. ROUTE CONDENSATE DRAIN AND CONNECT TO EXISTING CONDENSATE DRAIN PIPING AS INDICATED. MODIFY SIZE IF NEEDED AT THE RISER CONNECTION. CONDENSATE DRAIN LINE SIZE SHALL BE UNIT CONNECTION SIZE (1" MINIMUM).
- COVER EXISTING OUTSIDE AIR OPEN ENDED DUCT WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEALED AIR TIGHT. PROVIDE AN OPENING FOR NEW 8X6 OUTSIDE AIR DUCT CONNECTION.
- PROVIDE NEW MIXED AIR PLENUM 16" LONG WITH FLEXIBLE DUCT CONNECTION, FULL SIZE OF UNIT CONNECTION.
- PROVIDE NEW RETURN AIR DUCT OPEN END WITH MANUAL DAMPER (OPENING SIZE 24"x12") AT BOTTOM OF PLENUM.
- CONNECT NEW SUPPLY AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.
- PROVIDE NEW TRANSITION WITH FLEXIBLE DUCT CONNECTION FROM FULL SIZE OF UNIT CONNECTION TO EXISTING DUCT SIZE.
- CONNECT NEW CHILLED WATER SUPPLY AND RETURN, HEATING HOT WATER SUPPLY AND RETURN PIPING AND CONDENSATE DRAIN LINE TO EXISTING PIPING AT THIS APPROXIMATE LOCATION. IT MAY REQUIRE PIPE REDUCER AT EACH CONNECTION.
- FOR NEW CHILLED WATER AND HOT WATER COIL PIPING TO UNIT, SEE DETAIL 1/M600.
- PROVIDE NEW WALL MOUNTED THERMOSTAT.
- PROVIDE NEW DDC PANEL ON WALL. COORDINATE LOCATION WITH THE FAA RESIDENT ENGINEER.
- EXISTING CHEMICAL SHOT FEEDER PIPING FOR CHILLED WATER AND HOT WATER SYSTEMS SHALL BE REUSED FOR NEW INSTALLATION.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																	
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD								
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																	
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SECOND FLOOR PLAN - HVAC																	
BLOUNTVILLE					TRI-CITIES REGIONAL AIRPORT (TRI)												
REVIEWED BY		SUBMITTED BY				APPROVED BY											
		BOB BODRAN				MARK BEEKMAN											
		DESIGNED		ISSUED BY		DATE		JCN									
		NJ		ATLANTA TERMINAL		6/7/2012		701374									
		DRAWN		ENGINEERING		DRAWING NO											
		GTC		CENTER													
		CHECKED		WHH													
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328																	
HEI JOB NUMBER: 11020.00																	
					TRI-D-ATCT-M101												



1 THIRD FLOOR PLAN - HVAC
M102 SCALE: 1/4" = 1'-0"

ROOM SCHEDULE	
301	HALLWAY
302	ELEVATOR
303	CABLE SHAFT
304	MECHANICAL EQUIPMENT
305	ELECTRONIC EQUIPMENT
306	MEN'S TOILET
307	OAS
308	STORAGE ROOM



NOTES

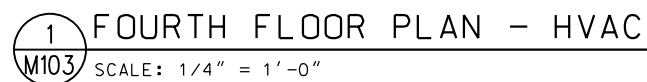
- PROVIDE UNIT OPERATING AND SERVICE CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE NEW CONDENSATE TRAP AT THE UNIT. ROUTE CONDENSATE DRAIN AND CONNECT TO EXISTING CONDENSATE DRAIN PIPING AS INDICATED. MODIFY SIZE IF NEEDED AT THE RISER CONNECTION. CONDENSATE DRAIN LINE SIZE SHALL BE UNIT CONNECTION SIZE (1" MINIMUM).
- CUT EXISTING OUTSIDE AIR BLANK-OFF COVER FOR A NEW 12X8 OUTSIDE AIR DUCT CONNECTION.
- SUPPLY AIR DUCT SIZE SHALL MATCH THE EXISTING DUCT SIZE AT THE CONNECTION.
- CONNECT NEW SUPPLY AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.
- CONNECT NEW CHILLED WATER SUPPLY AND RETURN, HEATING HOT WATER SUPPLY AND RETURN PIPING AND CONDENSATE DRAIN LINE TO EXISTING PIPING AT THIS APPROXIMATE LOCATION. IT MAY REQUIRE PIPE REDUCER AT EACH CONNECTION.
- FOR NEW CHILLED WATER AND HOT WATER COIL PIPING TO UNIT, SEE DETAIL 1/M600.
- PROVIDE NEW WALL MOUNTED THERMOSTAT AND HUMIDITY SENSOR AS INDICATED.
- PROVIDE NEW DDC PANEL ON WALL. COORDINATE LOCATION WITH THE FAA RESIDENT ENGINEER.
- PROVIDE NEW MIXED AIR PLENUM 14" LONG WITH FLEXIBLE DUCT CONNECTION. FULL SIZE OF UNIT CONNECTION.
- PROVIDE NEW RETURN AIR DUCT OPEN END WITH MANUAL DAMPER (OPENING SIZE 42"x12") AT BOTTOM OF PLENUM.
- NEW TRANSITION WITH FLEXIBLE DUCT CONNECTION FROM FULL SIZE OF UNIT CONNECTION TO DUCT SIZE MATCHING THE EXISTING.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.					
REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL THIRD FLOOR PLAN - HVAC					
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)		
REVIEWED BY	SUBMITTED BY		APPROVED BY		
	BOB BODRAN		MARK BEEKMAN		
DESIGNED	NJ	ISSUED BY	DATE	6/7/2012	JCN
DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO	701374	
CHECKED	WHH		TRI-D-ATCT-M102		REV

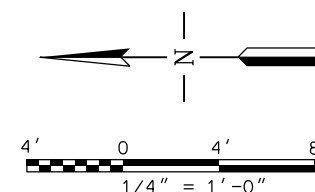


7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

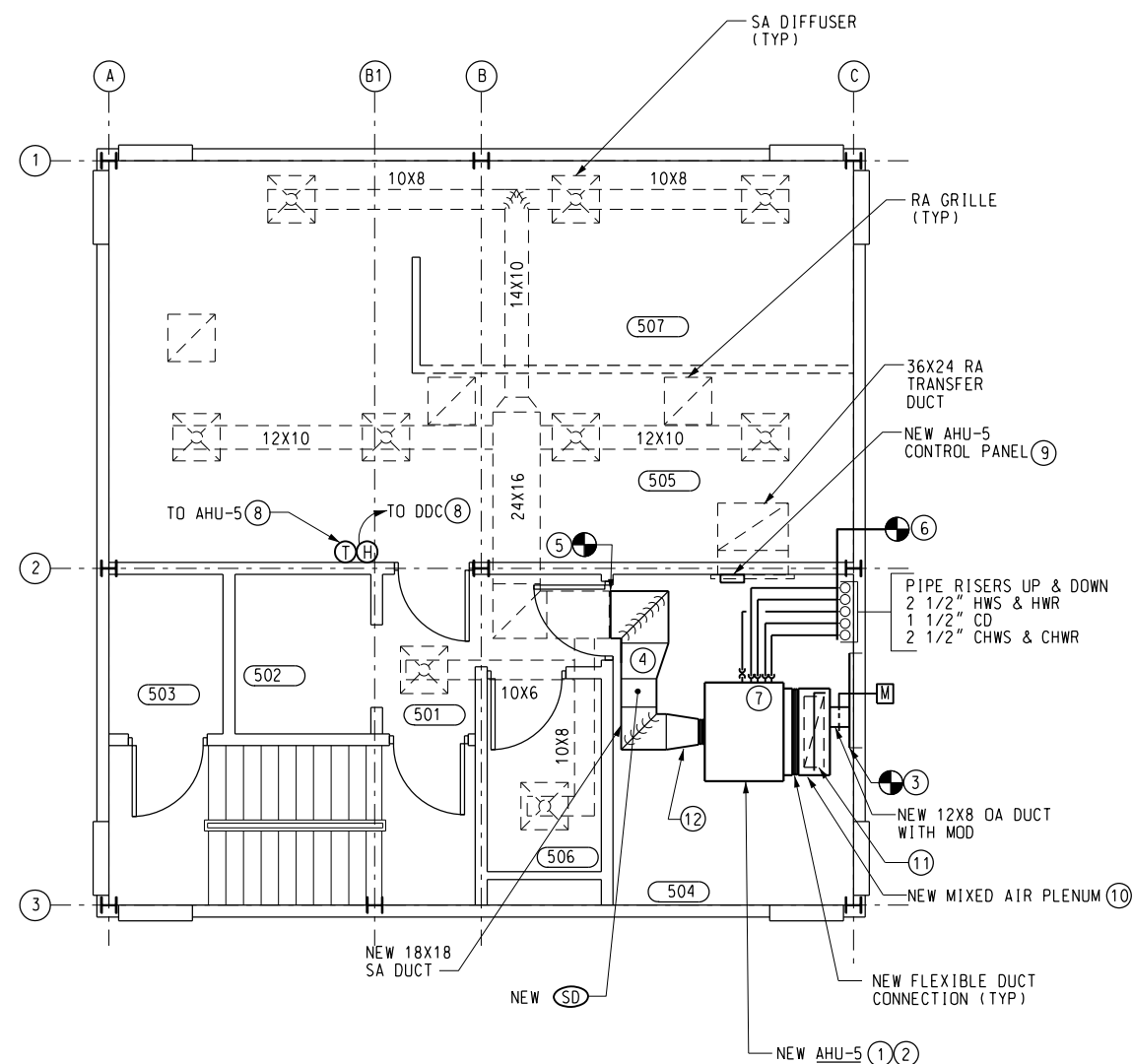


ROOM SCHEDULE	
401	HALLWAY
402	ELEVATOR
403	CABLE CHASE
404	ELECTRONIC EQUIPMENT
405	LAVATORY
406	JANITOR
407	MECHANICAL EQUIPMENT



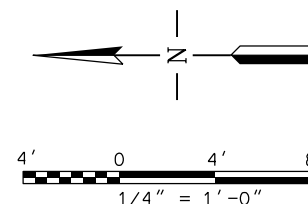
- ① PROVIDE UNIT OPERATING AND SERVICE CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS.
- ② PROVIDE NEW CONDENSATE TRAP AT THE UNIT. ROUTE CONDENSATE DRAIN AND CONNECT TO EXISTING CONDENSATE DRAIN PIPING AS INDICATED. MODIFY SIZE IF NEEDED AT THE RISER CONNECTION. CONDENSATE DRAIN LINE SIZE SHALL BE UNIT CONNECTION SIZE (1" MINIMUM).
- ③ COVER EXISTING OUTSIDE AIR OPEN ENDED DUCT WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT. PROVIDE AN OPENING FOR NEW 12X8 OUTSIDE AIR DUCT CONNECTION.
- ④ NEW TRANSITION FROM 20X20 TO DUCT SIZE MATCHING THE EXISTING.
- ⑤ CONNECT NEW SUPPLY AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.
- ⑥ CONNECT NEW CHILLED WATER SUPPLY AND RETURN, HEATING HOT WATER SUPPLY AND RETURN PIPING AND CONDENSATE DRAIN LINE TO EXISTING PIPING AT THIS APPROXIMATE LOCATION. IT MAY REQUIRE PIPE REDUCER AT EACH CONNECTION.
- ⑦ FOR NEW CHILLED WATER AND HOT WATER COIL PIPING TO UNIT, SEE DETAIL 1/M600.
- ⑧ PROVIDE NEW WALL MOUNTED THERMOSTAT AND HUMIDITY SENSOR.
- ⑨ PROVIDE NEW DDC PANEL ON WALL. COORDINATE LOCATION WITH THE FAA RESIDENT ENGINEER.
- ⑩ PROVIDE NEW MIXED AIR PLENUM 14" LONG WITH FLEXIBLE DUCT CONNECTION, FULL SIZE OF UNIT CONNECTION.
- ⑪ PROVIDE NEW RETURN AIR DUCT OPEN END WITH MANUAL DAMPER (OPENING SIZE 42"x12") AT BOTTOM OF PLENUM.
- ⑫ NEW TRANSITION WITH FLEXIBLE DUCT CONNECTION FROM FULL SIZE OF UNIT CONNECTION TO DUCT SIZE INDICATED.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.														
<div><div>HARTRAMPF</div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</div><div>HEI JOB NUMBER: 11020.00</div></div>														
										REV	APPROVED DATE	DESCRIPTION		
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION														
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL FOURTH FLOOR PLAN - HVAC														
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN														
REVIEWED BY		SUBMITTED BY				APPROVED BY								
		BOB BODRAN				MARK BEEKMAN								
		DESIGNED		NJ		ISSUED BY		DATE						
		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012						
		CHECKED		WHH		DRAWING NO		JCN 701374						
								REV						
TRI-D-ATCT-M103														



1 FIFTH FLOOR PLAN - HVAC
M104 SCALE: 1/4" = 1'-0"

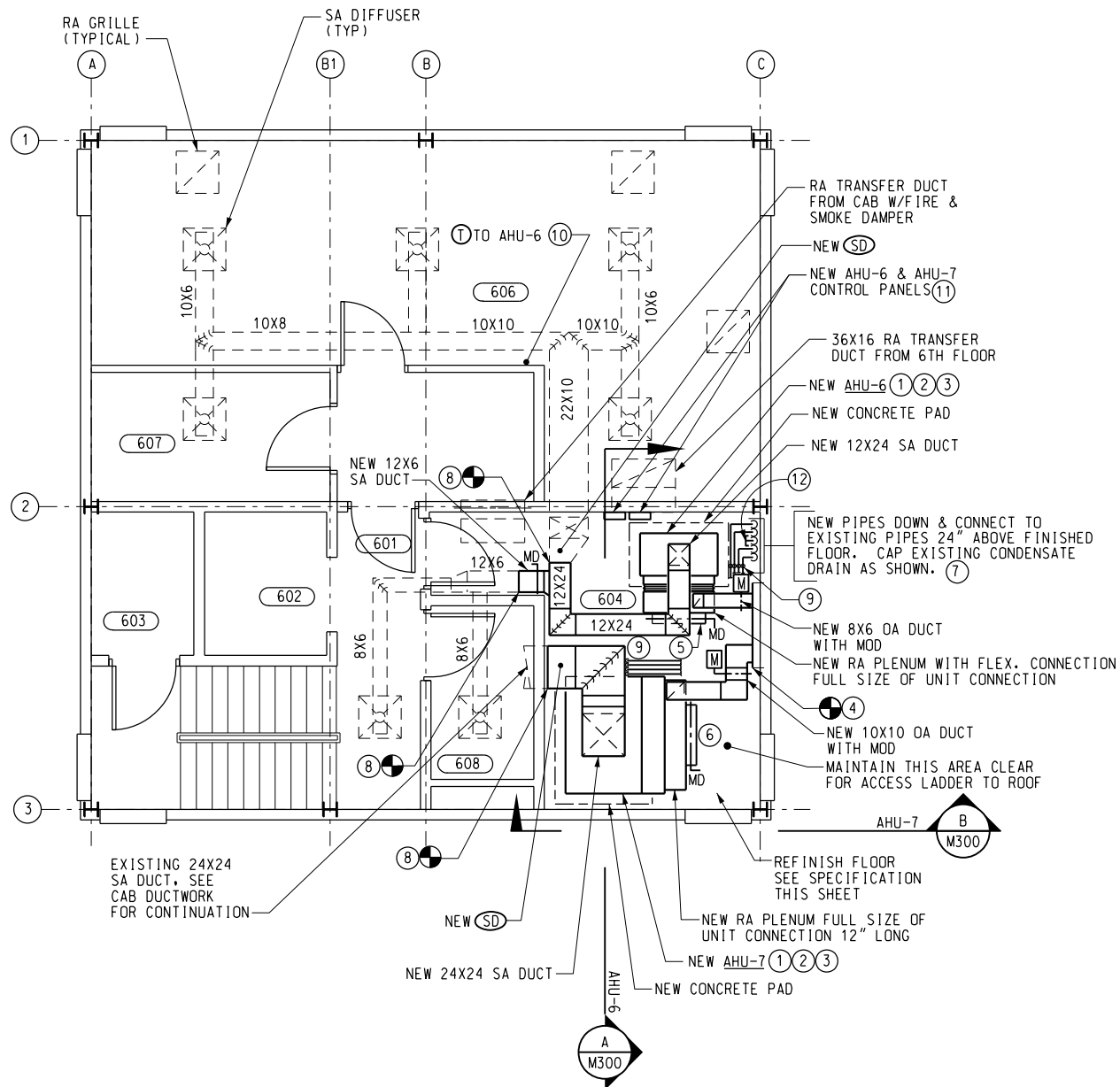
ROOM SCHEDULE	
501	HALLWAY
502	ELEVATOR
503	CABLE SHAFT
504	MECHANICAL EQUIPMENT
505	TRACON
506	LAVATORY
507	TRACON MAINTENANCE



NOTES

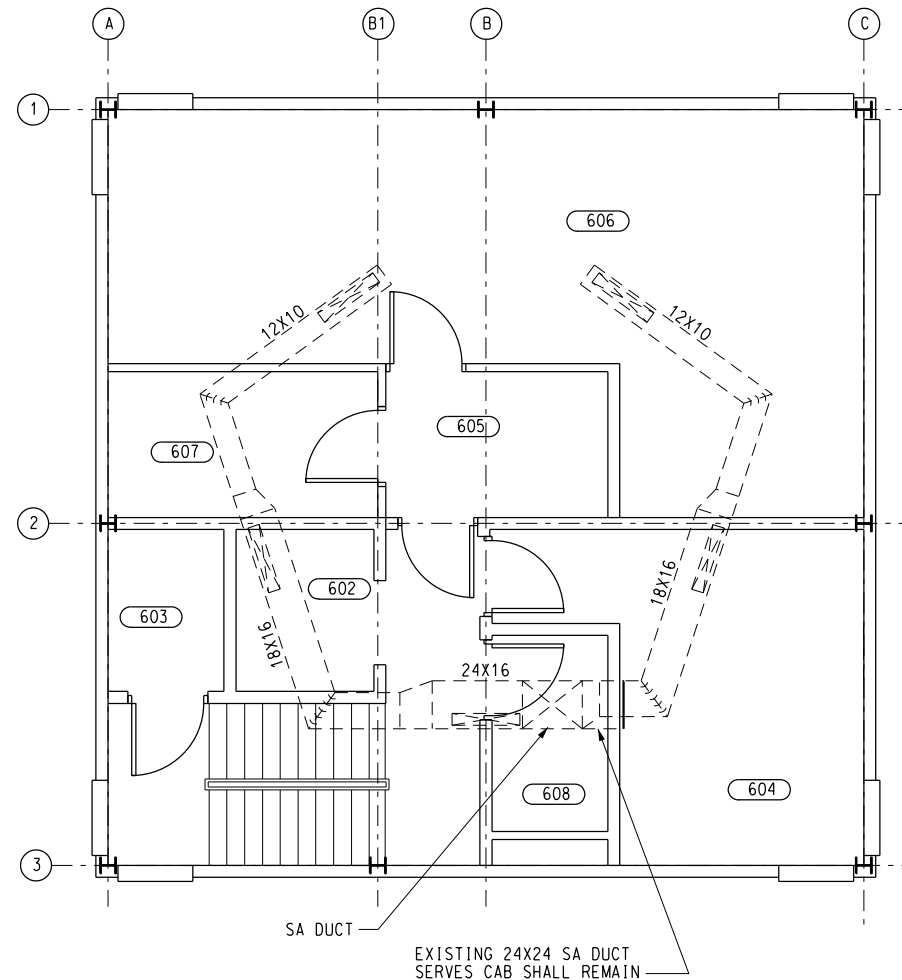
- PROVIDE UNIT OPERATING AND SERVICE CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE NEW CONDENSATE TRAP AT THE UNIT. ROUTE CONDENSATE DRAIN AND CONNECT TO EXISTING CONDENSATE DRAIN PIPING AS INDICATED. MODIFY SIZE IF NEEDED AT THE RISER CONNECTION. CONDENSATE DRAIN LINE SIZE SHALL BE UNIT CONNECTION SIZE (1" MINIMUM).
- COVER EXISTING OUTSIDE AIR OPEN ENDED DUCT WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT. PROVIDE AN OPENING FOR NEW 12X8 OUTSIDE AIR DUCT CONNECTION.
- NEW TRANSITION FROM 20X20 TO DUCT SIZE MATCHING THE EXISTING.
- CONNECT NEW SUPPLY AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.
- CONNECT NEW CHILLED WATER SUPPLY AND RETURN, HEATING HOT WATER SUPPLY AND RETURN PIPING AND CONDENSATE DRAIN LINE TO EXISTING PIPING AT THIS APPROXIMATE LOCATION. IT MAY REQUIRE PIPE REDUCER AT EACH CONNECTION.
- FOR NEW CHILLED WATER AND HOT WATER COIL PIPING TO UNIT, SEE DETAIL 1/M600.
- PROVIDE NEW WALL MOUNTED THERMOSTAT AND HUMIDITY SENSOR.
- PROVIDE NEW DDC PANEL ON WALL. COORDINATE LOCATION WITH THE FAA RESIDENT ENGINEER.
- PROVIDE NEW MIXED AIR PLENUM 14" LONG WITH FLEXIBLE DUCT CONNECTION, FULL SIZE OF UNIT CONNECTION.
- PROVIDE NEW RETURN AIR DUCT OPEN END WITH MANUAL DAMPER (OPENING SIZE 36"x10") AT BOTTOM OF PLENUM.
- NEW TRANSITION WITH FLEXIBLE DUCT CONNECTION FROM FULL SIZE OF UNIT CONNECTION TO DUCT SIZE INDICATED.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																					
<table border="1"> <tr> <td>REV</td> <td>APPROVED DATE</td> <td>DESCRIPTION</td> <td>JCN</td> <td>REDLINE DATE</td> <td>APVD</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>										REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD						
REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD																
<p align="center">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</p> <p align="center">TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL FIFTH FLOOR PLAN - HVAC</p> <p align="center">BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN</p>																					
REVIEWED BY		SUBMITTED BY			APPROVED BY																
		BOB BODRAN			MARK BEEKMAN																
DESIGNED		NJ		ISSUED BY		DATE		JCN													
DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012		701374													
CHECKED		WHH		DRAWING NO		TRI-D-ATCT-M104		REV													
<p align="center">HARTRAMPF</p> <p>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</p> <p align="right">HEI JOB NUMBER: 11020.00</p>																					



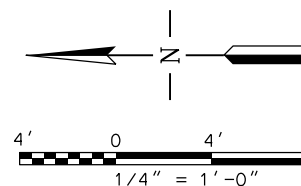
SIXTH FLOOR DUCTWORK

1 SIXTH FLOOR PLAN - HVAC
M105 SCALE: 1/4" = 1'-0"



CAB DUCTWORK

ROOM SCHEDULE	
601	HALLWAY
602	ELEVATOR
603	CABLE CHASE
604	MECHANICAL EQUIPMENT
605	STAIRWAY
606	READY ROOM
607	TELCO
608	LAVATORY



NOTES

- PROVIDE UNIT OPERATING AND SERVICE CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE NEW CONDENSATE TRAP AT THE UNIT. ROUTE NEW CONDENSATE DRAIN AND CONNECT TO EXISTING CONDENSATE DRAIN RISER. CONDENSATE DRAIN LINE SIZE SHALL BE UNIT CONNECTION SIZE (1" MINIMUM).
- PROVIDE NEW 4" THICK CONCRETE PAD FOR EACH AIR HANDLING UNIT AND ANCHOR UNIT TO NEW CONCRETE PAD.
- COVER EXISTING OUTSIDE AIR OPEN ENDED DUCT WITH INSULATED GALVANIZED SHEET METAL (16 GAGE MINIMUM) AND SEAL AIRTIGHT. PROVIDE OPENINGS FOR NEW 10X10 OUTSIDE AIR DUCT CONNECTIONS AS SHOWN.
- NEW RETURN AIR DUCT OPEN END WITH MANUAL DAMPER (OPENING SIZE 30"x10").
- NEW RETURN AIR DUCT OPEN END WITH MANUAL DAMPER (OPENING SIZE 34"x20").
- NEW 2 1/2" HWS & HWR PIPING AND 2 1/2" CHWS & CHWR PIPING.
- CONNECT NEW SUPPLY AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.
- FOR NEW CHILLED WATER AND HOT WATER COIL PIPING TO UNIT, SEE DETAIL 1/M600.
- PROVIDE NEW WALL MOUNTED THERMOSTAT.
- PROVIDE NEW DDC PANEL ON WALL. COORDINATE LOCATION WITH THE FAA RESIDENT ENGINEER.
- CAP EXISTING CONDENSATE DRAIN AT THIS APPROXIMATE LOCATION.

FLOOR COATING SPECIFICATION

EPOXY FLOOR COATING

INDICATED AREAS SHALL RECEIVE AN EPOXY FLOOR COATING. COATING SHALL CONSIST OF ONE PRIME COAT AND TWO FINISH COATS. FLOOR SHALL BE CLEAN, VOID OF ANY DEBRIS, FLOOR COVERING, MASTIC, GLUE, OLD FINISH, ETC. FLOOR SHALL BE PREPARED FOR EPOXY COATING BY ACID ETCHING OR MECHANICAL PREPARATION AS RECOMMENDED BY THE MANUFACTURER. NO EPOXY COATING SHALL BE APPLIED TO ANY FLOOR SURFACE WITHOUT PROPER MANUFACTURER APPROVED PREPARATION. COATING SHALL CONSIST OF THE FOLLOWING PRODUCT (OR EQUAL AND PRIOR-APPROVED PRODUCTS) APPLIED ACCORDING TO MANUFACTURER RECOMMENDED INSTRUCTIONS.

PRIME COAT: FAST DRY EPOXY FLOOR SEALER/FINISH (M41), BENJAMIN MOORE & CO.
FINISH COATS: 100% SOLIDS EPOXY FLOOR COATING (CM40), BENJAMIN MOORE & CO.

COLOR SHALL BE BATTLESHIP GRAY.

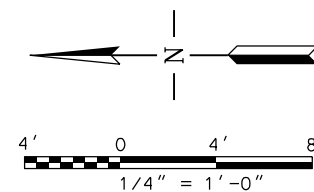
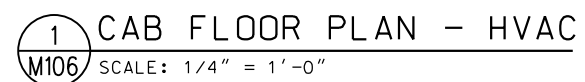
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.					
REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SIXTH FLOOR PLAN - HVAC					
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)		
REVIEWED BY	SUBMITTED BY		APPROVED BY		
	BOB BODRAN		MARK BEEKMAN		
DESIGNED	NJ	ISSUED BY	DATE	6/7/2012	JCN 701374
DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO	TRI-D-ATCT-M105	
CHECKED	WHH				REV




7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

① PROVIDE NEW THERMOSTAT AND HUMIDITY SENSOR IN SAME LOCATION AS EXISTING OR COORDINATE NEW LOCATION WITH THE FAA RESIDENT ENGINEER



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.					
REV	APPROVED DATE	DESCRIPTION		JCN	REDLINE DATE
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CAB FLOOR PLAN - HVAC					
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)			TN
REVIEWED BY		SUBMITTED BY		APPROVED BY	
		BOB BODRAN		MARK BEEKMAN	
		DESIGNED NJ	ISSUED BY	DATE 6/7/2012	JCN 701374
		DRAWN GTC	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO	REV
		CHECKED WHH			
TRI-D-ATCT-M106					



HARTRAMPF

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

NOTE

- ① PROVIDE 3" ISOLATION VALVE AND BLIND FLANGE FOR PORTABLE CHILLER CONNECTION.

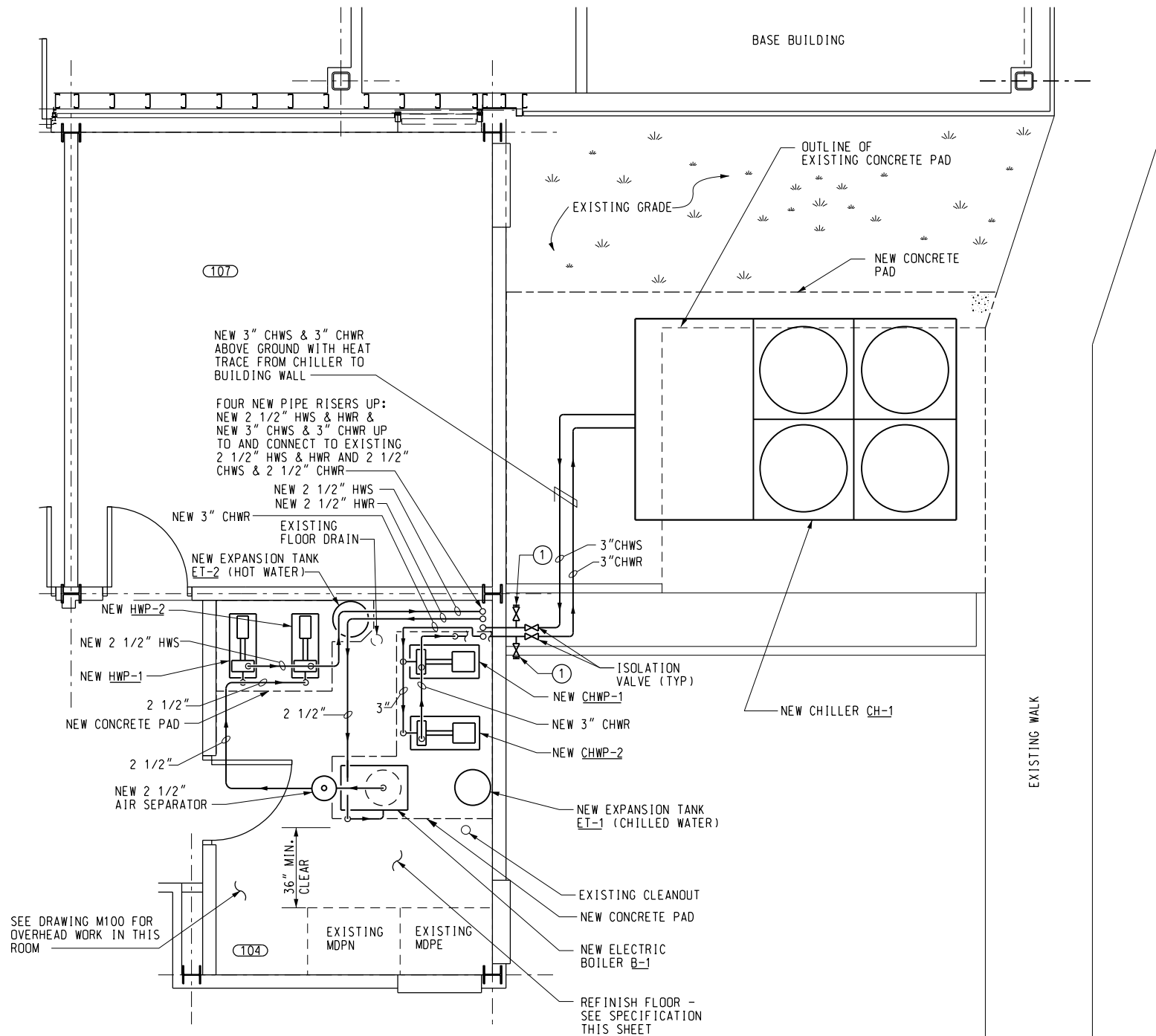
FLOOR COATING SPECIFICATION

EPOXY FLOOR COATING

INDICATED AREAS SHALL RECEIVE AN EPOXY FLOOR COATING. COATING SHALL CONSIST OF ONE PRIME COAT AND TWO FINISH COATS. FLOOR SHALL BE CLEAN, VOID OF ANY DEBRIS, FLOOR COVERING, MASTIC, GLUE, OLD FINISH, ETC. FLOOR SHALL BE PREPARED FOR EPOXY COATING BY ACID ETCHING OR MECHANICAL PREPARATION AS RECOMMENDED BY THE MANUFACTURER. NO EPOXY COATING SHALL BE APPLIED TO ANY FLOOR SURFACE WITHOUT PROPER MANUFACTURER APPROVED PREPARATION. COATING SHALL CONSIST OF THE FOLLOWING PRODUCT (OR EQUAL AND PRIOR-APPROVED PRODUCTS) APPLIED ACCORDING TO MANUFACTURER RECOMMENDED INSTRUCTIONS.

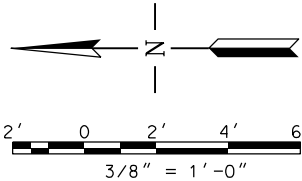
PRIME COAT: FAST DRY EPOXY FLOOR SEALER/FINISH (M41), BENJAMIN MOORE & CO.
FINISH COATS: 100% SOLIDS EPOXY FLOOR COATING (CM40), BENJAMIN MOORE & CO.

COLOR SHALL BE BATTLESHIP GRAY.



1 ENLARGED FIRST FLOOR MECHANICAL ROOM PLAN - HVAC
M107 SCALE: 3/8" = 1'-0"

ROOM SCHEDULE	
104	MECHANICAL EQUIPMENT
107	AF RADAR UNIT SUPERVISOR



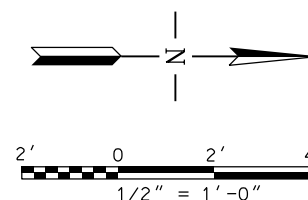
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.														
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD					
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION														
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT														
MECHANICAL														
ENLARGED FIRST FLOOR MECHANICAL ROOM PLAN - HVAC														
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)						TN						
REVIEWED BY		SUBMITTED BY				APPROVED BY								
		BOB BODRAN				MARK BEEKMAN								
		DESIGNED		ISSUED BY		DATE		JCN						
		NJ		ATLANTA TERMINAL		6/7/2012		701374						
		DRAWN		ENGINEERING		DRAWING NO		REV						
		GTC		CENTER		TRI-D-ATCT-M107								
		CHECKED		WHH										

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00



1 ENLARGED MECHANICAL ROOM PLANS - HVAC
M109 SCALE: 1/2" = 1'-0"



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.						
	REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION						
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL ENLARGED MECHANICAL ROOM PLANS - HVAC						
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)			TN
REVIEWED BY	SUBMITTED BY			APPROVED BY		
	BOB BODRAN			MARK BEEKMAN		
	DESIGNED	NJ	ISSUED BY	DATE	6/7/2012	JCN 701374
	DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO		
	CHECKED	WHH			REV	
TRI-D-ATCT-M109						

HARTRAMPF

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00



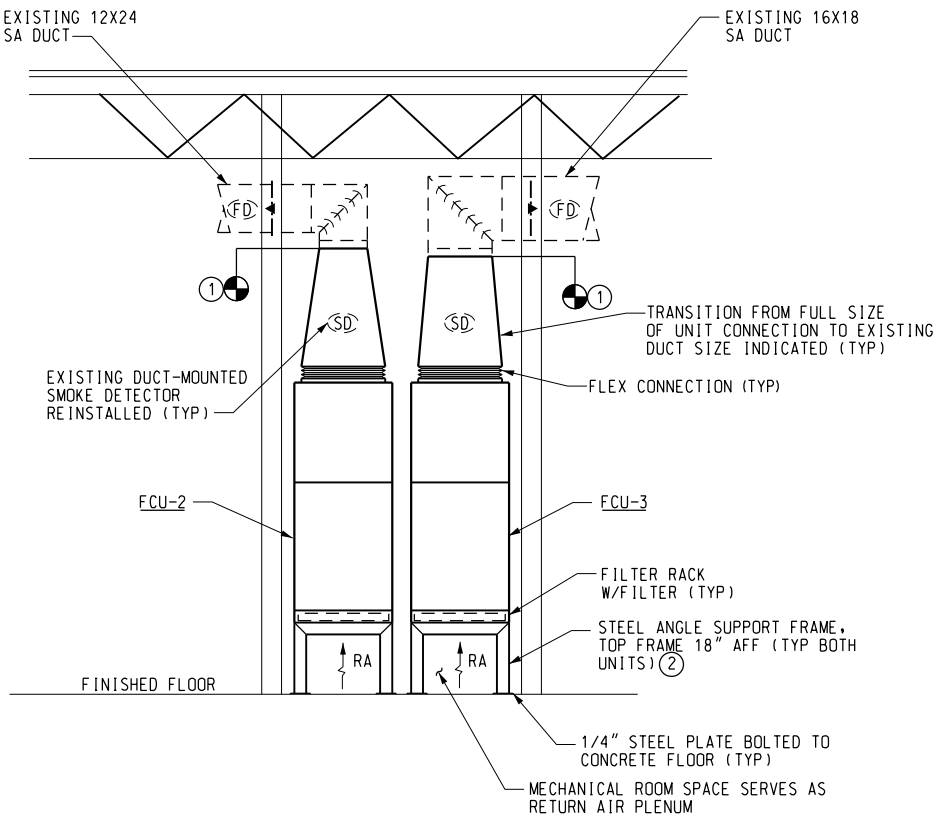
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SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																	
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD								
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																	
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL HVAC SECTIONS																	
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN																	
REVIEWED BY		SUBMITTED BY					APPROVED BY										
		BOB BODRAN					MARK BEEKMAN										
		DESIGNED		NJ	ISSUED BY		DATE	6/7/2012	JCN	701374							
		DRAWN		GTC	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-M300								
		CHECKED		WHH					REV								

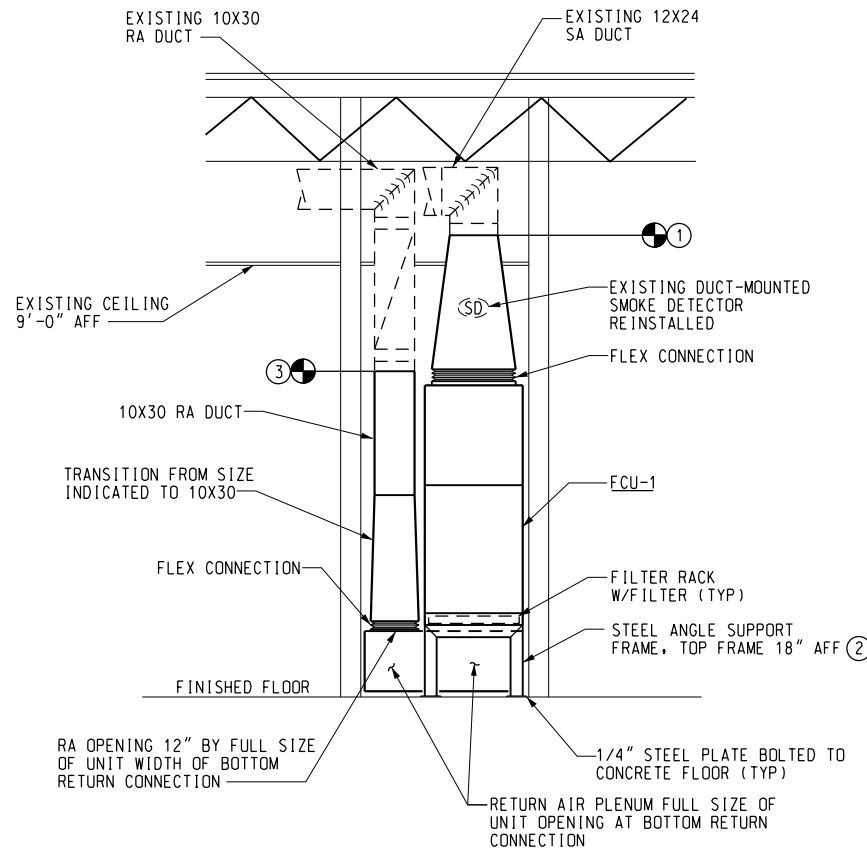
HARTRAMPF

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

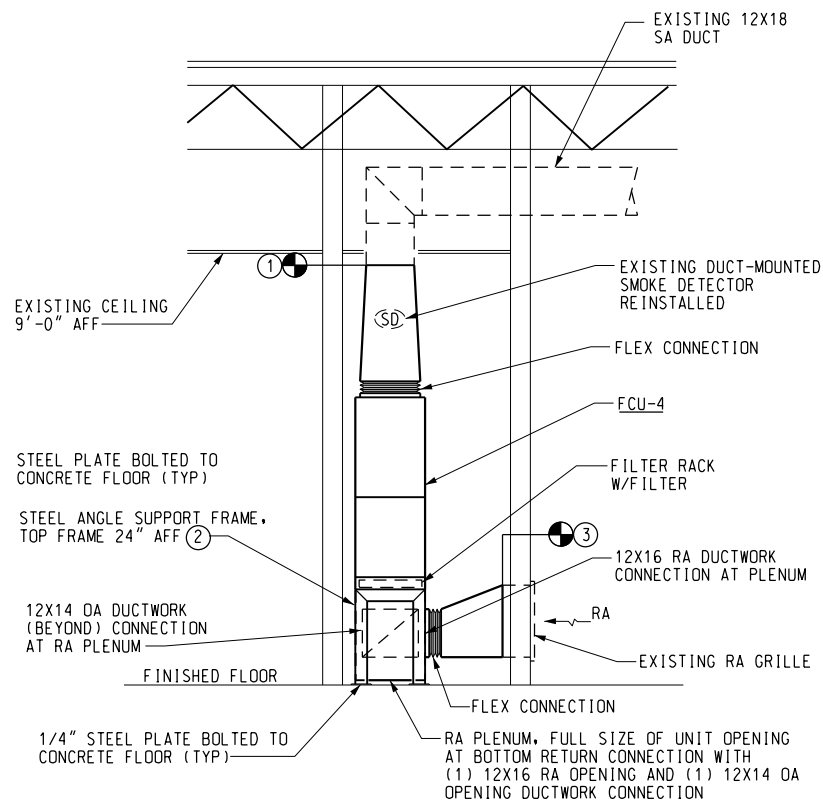
HEI JOB NUMBER: 11020.00



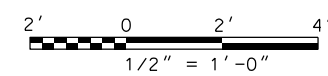
A SECTION
M301 SCALE: 1/2" = 1'-0"



B SECTION
M301 SCALE: 1/2" = 1'-0"



C SECTION
M301 SCALE: 1/2" = 1'-0"



NOTES

- ① CONNECT NEW SUPPLY AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.
- ② PROVIDE NEW 3"x3"x1/4" STEEL ANGLE SUPPORT FRAME WITH 1/4" STEEL PLATE ON EACH LEG. ANCHOR FRAME TO CONCRETE FLOOR SLAB AND UNIT BASE PER MANUFACTURER'S RECOMMENDATIONS. TOP FRAME TO ELEVATE UNIT AS INDICATED ABOVE FINISHED FLOOR OR AS REQUIRED BY UNIT MANUFACTURER FOR BOTTOM RETURN APPLICATION. THE ENTIRE SUPPORT FRAMES SHALL BE GALVANIZED STEEL.
- ③ CONNECT NEW RETURN AIR DUCT TO EXISTING DUCT AT THIS APPROXIMATE LOCATION. DUCT SIZE SHALL MATCH THE EXISTING.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.										
REV	APPROVED DATE	DESCRIPTION						JCN	REDLINE DATE	APVD
<p align="center">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</p> <p align="center">TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL HVAC SECTIONS</p> <p align="center">BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN</p>										
DESIGNED	NJ	ISSUED BY	DATE	6/7/2012	JCN	701374				
DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO	TRI-D-ATCT- M301				REV		
CHECKED	WHH									

HARTRAMPF

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328


HEI JOB NUMBER: 11020.00

AIR-COOLED LIQUID CHILLER SCHEDULE															
MARK	MIN. CAPACITY (TONS)	COMPRESSOR TYPE	LIQUID USED	EWT (°F)	LWT (°F)	FLOW RATE (GPM)	MAX. WPD. (FT.)	FOULING FACTOR	NO. OF CIRCUITS	MIN. CIRCUIT AMPACITY	ELECTRICAL SERVICE	AMBIENT AIR TEMP. (°F)	MINIMUM EER	BASIS OF DESIGN (YORK) ⑥	REMARKS
CH-1	46.1	SCROLL	GLYCOL	54	44 ⑦	112.0	10.2	0.00010	2	248.4	208V/3 PH/60 HZ	95	10.1	MODEL YCAL0052EE	①②③④⑤⑥

- ① WATER CONTAINS 10% PROPYLENE GLYCOL BY VOLUME.
- ② REFRIGERANT TYPE - R410A.
- ③ CONDENSER COILS SHALL HAVE COIL GUARDS.
- ④ PROVIDE LOW AMBIENT TEMPERATURE CONTROL TO START AND RUN AT 0°F.
- ⑤ CHILLER SHALL HAVE CAPACITY STEPS OF 25%, 50%, 75%, AND 100%.
- ⑥ YORK BY JOHNSON CONTROLS.
- ⑦ FIELD TO ADJUST THE LEAVING WATER TEMPERATURE SETPOINT TO 43° F.

AIR HANDLING UNIT SCHEDULE																												
MARK	SERVES	TYPE	FAN					COOLING COIL										HEATING COIL								BASIS OF DESIGN (YORK) ⑨	REMARKS	
			SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	E.S.P. (IN. WG.)	MOTOR HP	ELECTRICAL SERVICE	TOTAL COOLING CAP. (MBH)	SENSIBLE COOLING CAP. (MBH)	EAT (°F)		LAT (°F)		EWT (°F)	LWT (°F)	LIQUID USED ①	FLOW RATE (GPM)	MAX. WPD (FT.)	TOTAL HEATING CAP. (MBH)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	LIQUID USED	FLOW RATE (GPM)			MAX. WPD (FT.)
										DB	WB	DB	WB															
AHU-1	FIRST FLOOR	HORIZONTAL BLOWER-COIL UNIT	1190	110	0.75	0.75	208V/3 PH/60 HZ	36.8	29.9	76.3	63.5	53.5	52.9	44	54.1	GLYCOL	7.4	3.5	47.6	40	76.9	190	170	WATER	5.0	3.7	MODEL AH112	③④⑤⑧⑩
AHU-2	SECOND FLOOR	HORIZONTAL BLOWER-COIL UNIT	1500	140	0.75	0.75	208V/3 PH/60 HZ	48.5	37.6	76.4	63.6	53.7	52.5	44	54.9	GLYCOL	9.0	15.6	50.8	40	71.3	190	170	WATER	5.2	1.0	MODEL AH116	③④⑤⑧⑩
AHU-3	THIRD FLOOR	HORIZONTAL BLOWER-COIL UNIT	2900	140	0.75	2.0	208V/3 PH/60 HZ	85.7	71.1	75.6	63.1	53.4	53.0	44	54.0	GLYCOL	17.4	1.9	126.8	40	80.4	190	170	WATER	13.1	1.0	MODEL AH130	③④⑤⑧⑩
AHU-4	FOURTH FLOOR	HORIZONTAL BLOWER-COIL UNIT	2880	280	0.75	2.0	208V/3 PH/60 HZ	91.1	73.8	76.4	63.6	53.2	52.8	44	53.9	GLYCOL	18.6	2.1	126.4	40	80.5	190	170	WATER	13.1	1.0	MODEL AH130	③④⑤⑧⑩
AHU-5	FIFTH FLOOR	HORIZONTAL BLOWER-COIL UNIT	2050	210	0.75	1.5	208V/3 PH/60 HZ	59.1	48.7	76.4	63.7	54.9	54.0	44	54.0	GLYCOL	12.0	2.6	121.6	40	94.8	190	170	WATER	7.1	0.7	MODEL AH120	③④⑤⑧⑩
AHU-6	SIXTH FLOOR	VERTICAL BLOWER-COIL UNIT	1500	140	0.75	0.75	208V/3 PH/60 HZ	48.5	37.6	76.4	63.6	53.7	52.5	44	54.9	GLYCOL	9.0	15.6	50.8	40	71.3	190	170	WATER	5.2	1.0	MODEL AV116	③④⑤⑧⑩
AHU-7	CAB	VERTICAL DRAW-THRU UNIT	4200	300	1.50	5.0	208V/3 PH/60 HZ	130.3	100.0	75.9	63.3	53.3	52.3	44	54.0	GLYCOL	26.4	8.6	135.8	40	69.1	190	170	WATER	14.0	1.5	MODEL SOLUTION AHU 33X66	②④⑤⑥⑦⑩

- ① CHILLED WATER CONTAINS 10% PROPYLENE GLYCOL BY VOLUME.
- ② DOUBLE WALL CONSTRUCTION WITH INSULATION.
- ③ MINIMUM 18 GAUGE GALVANIZED STEEL CASING WITH REINFORCED FOIL FACED INSULATION.
- ④ STAINLESS STEEL DRAIN PAN.
- ⑤ UNIT SHALL INCLUDE FIELD MOUNTED DIRECT DIGITAL CONTROLS.
- ⑥ PROVIDE STRUCTURAL BASE RAIL 3" HIGH UNDER THE FULL PERIMETER OF THE UNIT.
- ⑦ 4" PLEATED FILTERS WITH EFFICIENCIES OF 80-85% (MERV 13).
- ⑧ 2" PLEATED FILTERS WITH EFFICIENCIES OF 30% (MERV 7).
- ⑨ YORK BY JOHNSON CONTROLS.
- ⑩ PROVIDE 1 SPARE FAN MOTOR OF EACH SIZE USED. PROVIDE 1 SPARE SHEAVE FOR EACH SIZE USED. PROVIDE A COMPLETE SET OF SPARE BELTS FOR ALL UNITS. FAN MOTOR ASSEMBLY SHALL BE PACKED WITH PROTECTIVE COVERING AND INSTALLATION INSTRUCTIONS AND STORED IN THE AREA DESIGNATED BY THE FAA RESIDENT ENGINEER.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																			
<div><p>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</p><p>HEI JOB NUMBER: 11020.00</p></div>										REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD
										DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
										TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL HVAC SCHEDULES									
										BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN									
										REVIEWED BY		SUBMITTED BY BOB BODRAN					APPROVED BY MARK BEEKMAN		
		DESIGNED NJ		ISSUED BY ATLANTA TERMINAL ENGINEERING CENTER		DATE 6/7/2012		JCN 701374		REV									
		DRAWN GTC				DRAWING NO TRI-D-ATCT-M500													
		CHECKED WHH																	

BOILER SCHEDULE										
MARK	TYPE	SERVICE	OUTPUT (KW)	STAGES	EW T (°F)	LWT (°F)	MAX. WPD. (FT.)	ELECTRICAL SERVICE	BASIS OF DESIGN	REMARKS
B-1	ELECTRIC HOT WATER BOILER	HEATING	105	4	170	190	10.0	208V/3PH/60 Hz	PRECISION MODEL PCW1-105	①②

- ① PROVIDE FUSED DISCONNECT.
- ② BOILER CONTROLS SHALL BE INTERFACED WITH THE TAC AMERICAS I/NET DDC SYSTEM.

EXPANSION TANK SCHEDULE						
MARK	SERVES	LOCATION	VOLUME		BASIS OF DESIGN	REMARKS
			MIN. TANK (GAL)	ACCEPTANCE (GAL)		
ET-1	CHILLED WATER	FIRST FLOOR MECHANICAL ROOM	22	11	BELL & GOSSETT B-85LA	①
ET-2	HEATING HOT WATER	FIRST FLOOR MECHANICAL ROOM	22	11	BELL & GOSSETT B-85LA	①


- ① VERTICAL FLOOR MOUNT, BLADDER TYPE

PUMP SCHEDULE											
MARK	TYPE	SERVES	LIQUID USED	FLOW RATE (GPM)	HEAD (FT.)	MOTOR HP	MOTOR SPEED (RPM)	PUMP EFF. (%)	ELECTRICAL SERVICE	BASIS OF DESIGN	REMARKS
CHWP-1	BASE-MOUNTED END SUCTION	CHILLED WATER	GLYCOL	112	60	5	1750	65	208V/3PH/60 Hz	BELL & GOSSETT 1510 2BC	①②
CHWP-2	BASE-MOUNTED END SUCTION	CHILLED WATER	GLYCOL	112	60	5	1750	65	208V/3PH/60 Hz	BELL & GOSSETT 1510 2BC	①②
HWP-1	BASE-MOUNTED END SUCTION	HEATING HOT WATER	WATER	71	42	2	1750	65	208V/3PH/60 Hz	BELL & GOSSETT 1510 1-1/2BC	①
HWP-2	BASE-MOUNTED END SUCTION	HEATING HOT WATER	WATER	71	42	2	1750	65	208V/3PH/60 Hz	BELL & GOSSETT 1510 1-1/2BC	①

- ① PRIMARY OR STANDBY (SELECTABLE), ONE PUMP SHALL OPERATE AT A TIME.
- ② WATER CONTAINS 10% PROPYLENE GLYCOL BY VOLUME.

SPLIT SYSTEM HEAT PUMP SCHEDULE																				
INDOOR UNIT													OUTDOOR UNIT							REMARKS
MARK	SA CFM	OA CFM	ESP IN W.G.	FAN HP	ELECTRICAL DATA			COOLING			HEATING	BASIS OF DESIGN (YORK)	MARK	MBH COOLING @95°F AMBIENT	MINIMUM SEER	ELECTRICAL DATA			BASIS OF DESIGN (YORK)	
					VOLTS	PH	HZ	TOTAL MBH	SENSIBLE MBH	REFRIG. TYPE	AUXILIARY HEAT KW					VOLTS	PH	HZ		
FCU-1	1730	⑥	0.5	1.0	208	1	60	55.3	39.0	R-410	10.8 ②	③	HP-1	55.3	13.75	208	3	60	YHJD60S43S4	①⑤⑦
FCU-2	1730	⑥	0.5	1.0	208	1	60	55.3	39.0	R-410	10.8 ②	③	HP-2	55.3	13.75	208	3	60	YHJD60S43S4	①⑤⑦
FCU-3	1730	⑥	0.5	1.0	208	1	60	55.3	39.0	R-410	10.8 ②	③	HP-3	55.3	13.75	208	3	60	YHJD60S43S4	①⑤⑦
FCU-4	915	⑥	0.5	0.5	208	1	60	29.0	20.0	R-410	7.2 ②	④	HP-4	29.0	14.50	208	3	60	YHJD30S43S4	①⑤⑦

- ① UNIT SHALL BE VERTICAL UPFLOW TYPE.
- ② ELECTRIC HEATER, 208 VOLT, 3 PHASE, 60 HZ.
- ③ MODEL: AIR HANDLER - MV20DN21C, DX COIL - FC62D3XN1, HEATER - S1-4HK06501525.
- ④ MODEL: AIR HANDLER - MV12BN21C, DX COIL - FC35B3XN1, HEATER - S1-4HK06501025.
- ⑤ YORK BY JOHNSON CONTROLS.
- ⑥ OUTSIDE CFM AS EXISTING.
- ⑦ NEW SEVEN DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																							
<div><p>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</p><p>HEI JOB NUMBER: 11020.00</p></div>																							
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TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL HVAC SCHEDULES																							
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI)													TN										
REVIEWED BY		SUBMITTED BY BOB BODRAN								APPROVED BY MARK BEEKMAN													
		DESIGNED NJ		ISSUED BY		DATE 6/7/2012		JCN 701374															
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-M501		REV													
		CHECKED WHH																					

SPLIT SYSTEM HEAT PUMP SCHEDULE

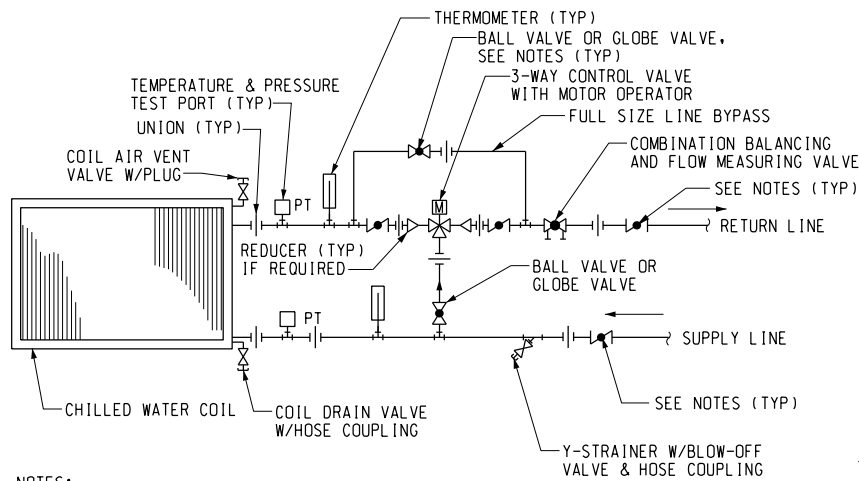
[illegible]

- ① UNIT SHALL BE VERTICAL UPFLOW TYPE.
- ② ELECTRIC HEATER, 208 VOLT, 3 PHASE, 60 HZ.
- ③ MODEL: AIR HANDLER - MV20DN21C, DX COIL - FC62D3XN1, HEATER - S1-4HK06501525.
- ④ MODEL: AIR HANDLER - MV12BN21C, DX COIL - FC35B3XN1, HEATER - S1-4HK06501025.
- ⑤ YORK BY JOHNSON CONTROLS.
- ⑥ OUTSIDE AIR CFM AS EXISTING.
- ⑦ PROVIDE SEVEN DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.

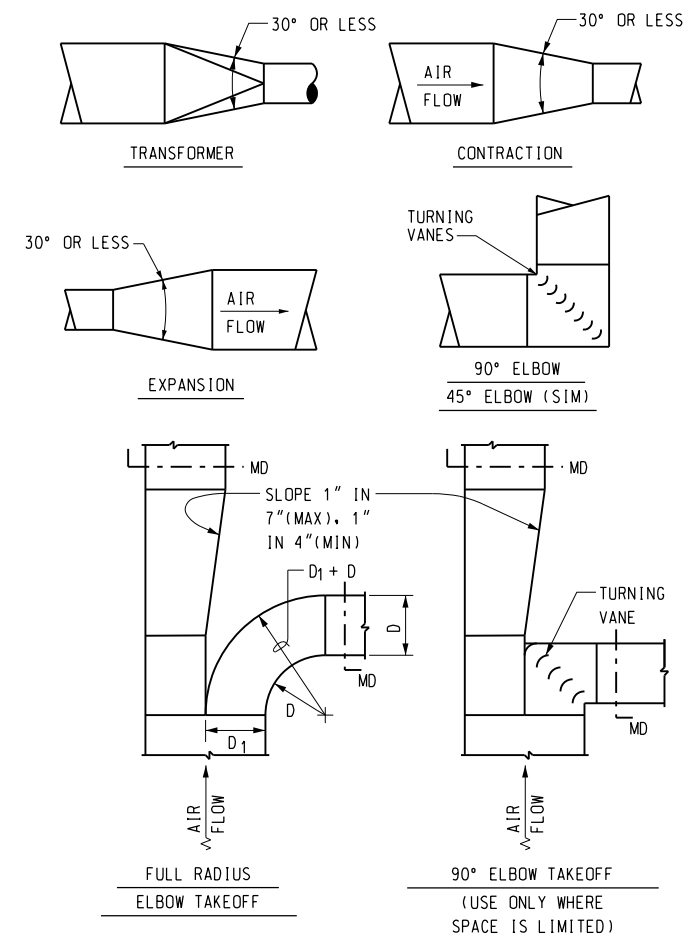
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REVIEWED BY		SUBMITTED BY		APPROVED BY	
		BOB BODRAN		MARK BEEKMAN	
DESIGNED		NJ	ISSUED BY		DATE
DRAWN		GTC	ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012
CHECKED		WHH	DRAWING NO		JCN 701374
					REV

TRI-D-ATCT-M502

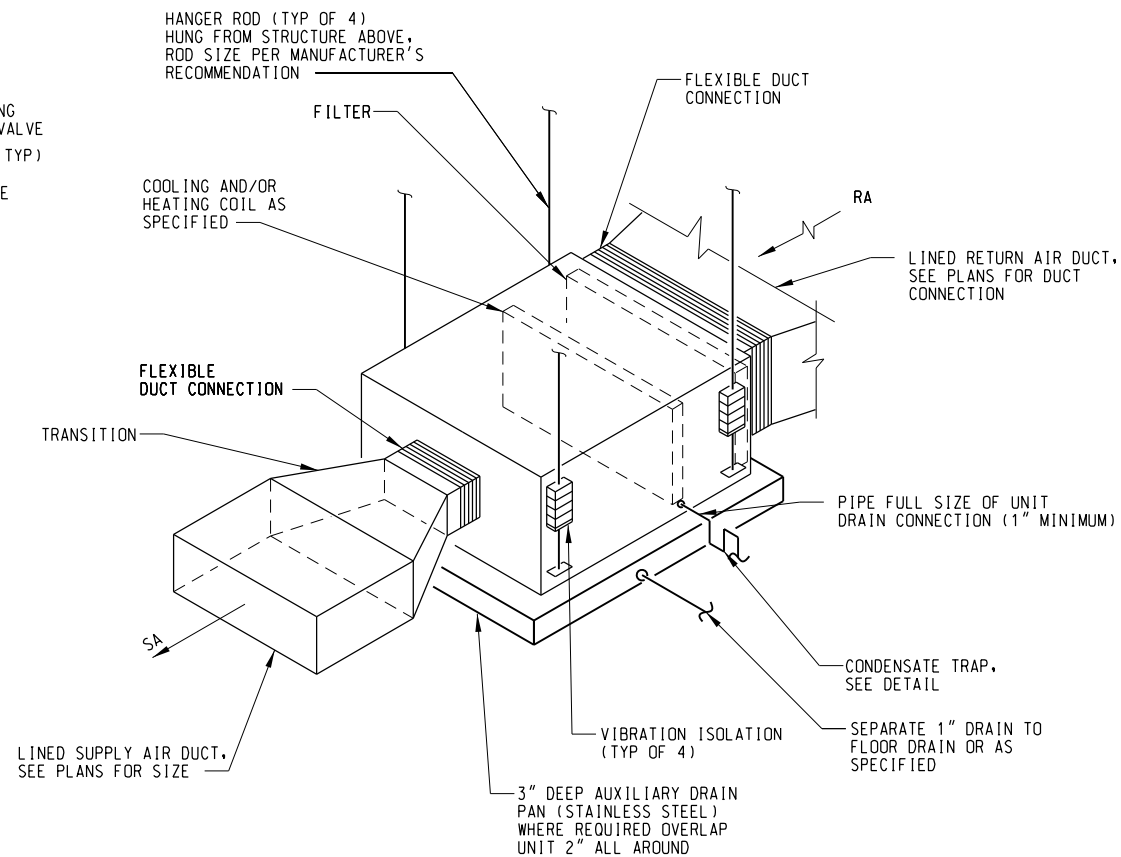


- NOTES:
1. BALL VALVE FOR CHILLED WATER OR HOT WATER (2" AND SMALLER).
 2. BUTTERFLY VALVE FOR CHILLED WATER (2 1/2" AND LARGER).
 3. GATE VALVE FOR HOT WATER (2 1/2" AND LARGER).
 4. REFER TO THE CONTROL DIAGRAM FOR ADDITIONAL DEVICES THAT ARE REQUIRED.
 5. BALL VALVE FOR BYPASS CHILLED WATER OR HOT WATER (2" AND SMALLER).
 6. GLOBE VALVE FOR BYPASS CHILLED WATER OR HOT WATER (2 1/2" AND LARGER).

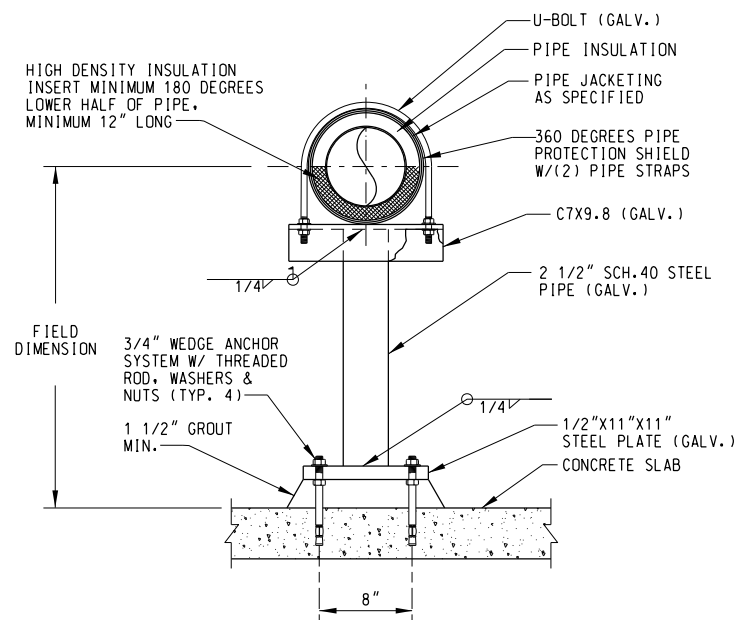
1 AIR HANDLING UNIT
WATER COIL PIPING DETAIL
NOT TO SCALE



4 LOW VELOCITY DUCT DETAIL
NOT TO SCALE

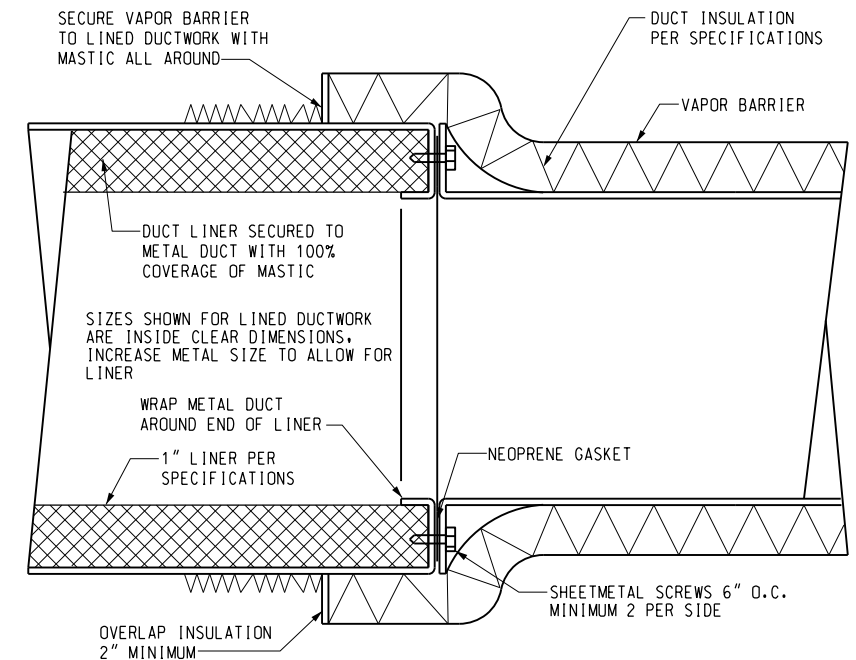


2 HORIZONTAL AIR HANDLING UNIT DETAIL
NOT TO SCALE

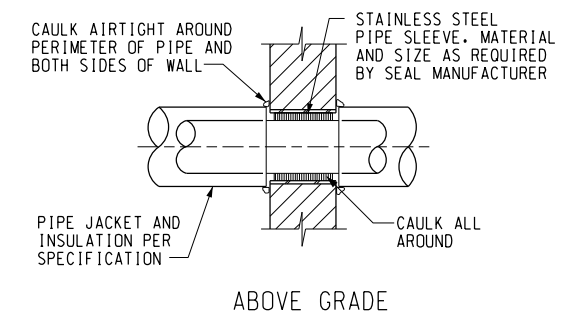


NOTE: ALL HARDWARES SHALL BE STAINLESS STEEL INCLUDING WEDGE ANCHORS, BOLTS, STRAPS, NUTS AND WASHERS.

5 OUTDOOR PIPE SUPPORT DETAIL
NOT TO SCALE



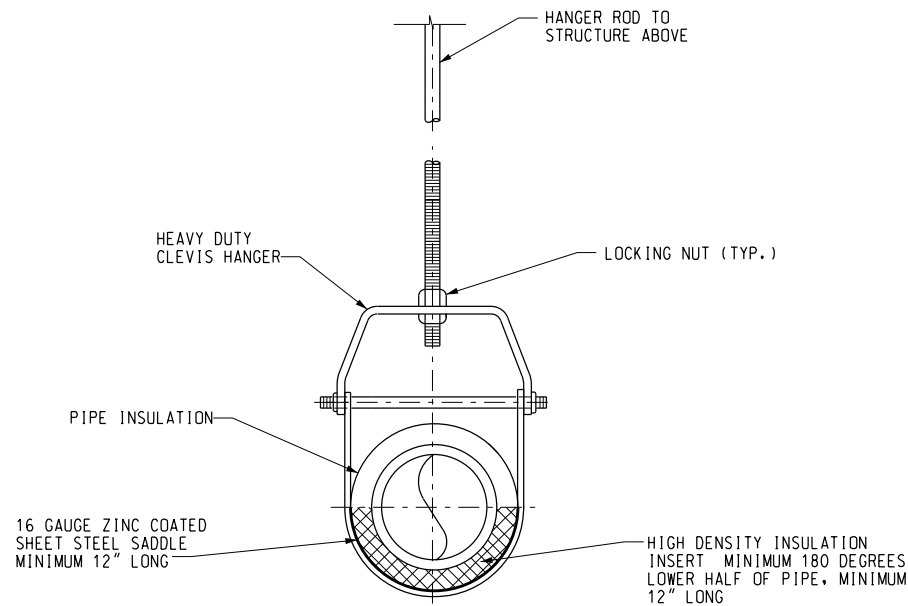
3 DUCT LINER TERMINATION DETAIL
NOT TO SCALE



6 PIPE SLEEVE DETAIL
(THRU EXTERIOR WALLS)
NOT TO SCALE

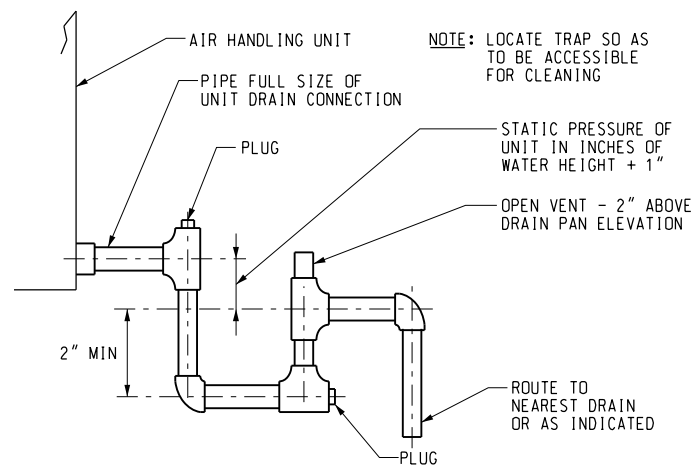
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BLOUNTVILLE					TRI-CITIES REGIONAL AIRPORT (TRI)			TN	
REVIEWED BY	SUBMITTED BY				APPROVED BY				
	BOB BODRAN				MARK BEEKMAN				
DESIGNED	NJ		ISSUED BY		DATE		JCN		701374
DRAWN	GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		REV		
CHECKED	WHH				TRI-D-ATCT-M600				
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00									



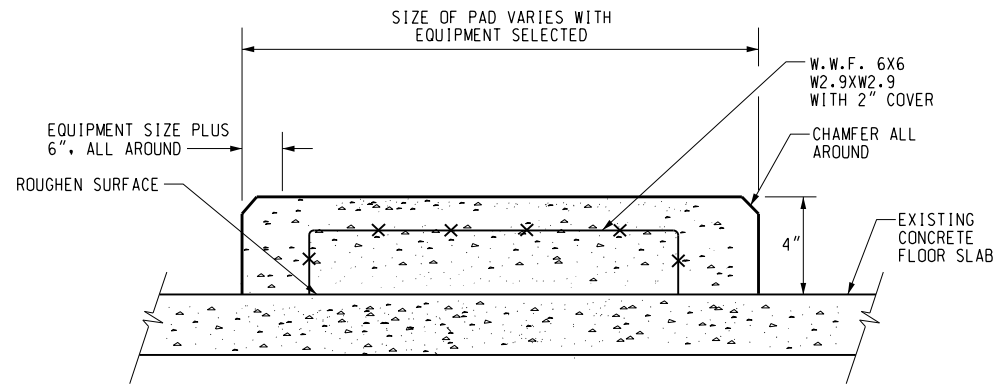


NOTE:
1. TRAPEZE HANGERS MAY BE USED, SIZED IN ACCORDANCE WITH SPECIFICATIONS, WITH SADDLE AND HIGH DENSITY INSULATION AS PER THIS DETAIL.

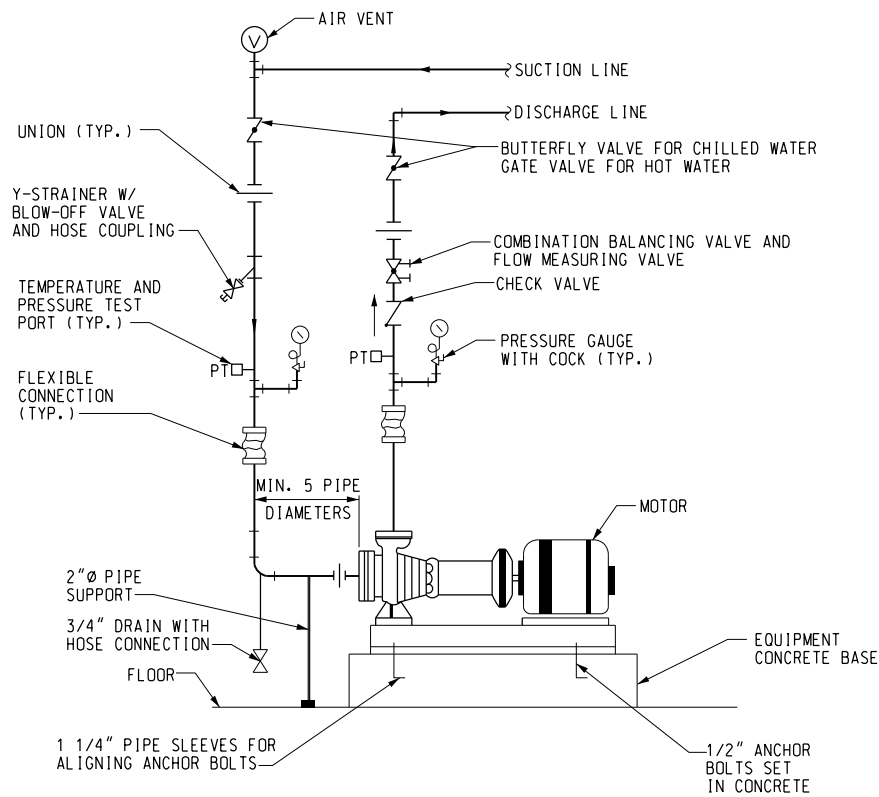
1 TYPICAL PIPE HANGER DETAIL
M601 NOT TO SCALE



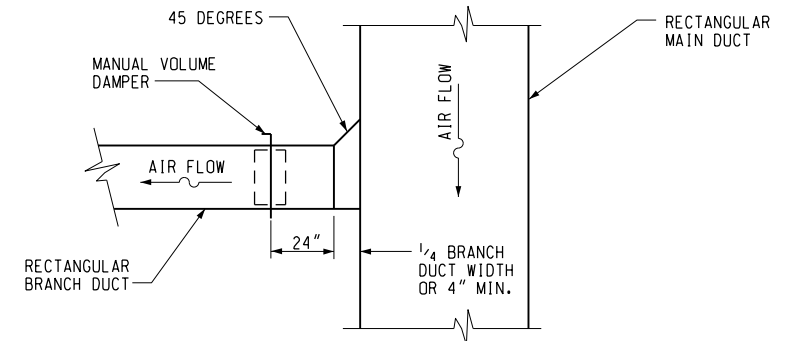
4 CONDENSATE TRAP DETAIL
M601 NOT TO SCALE



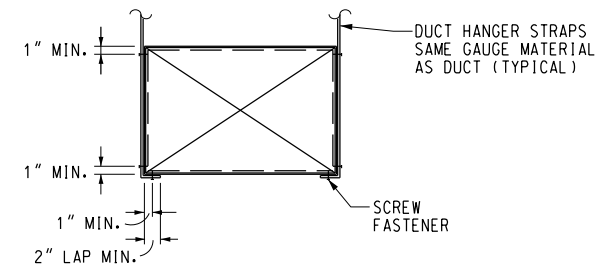
2 INTERIOR EQUIPMENT CONCRETE PAD DETAIL
M601 NOT TO SCALE



5 END SUCTION PUMP DETAIL
M601 NOT TO SCALE



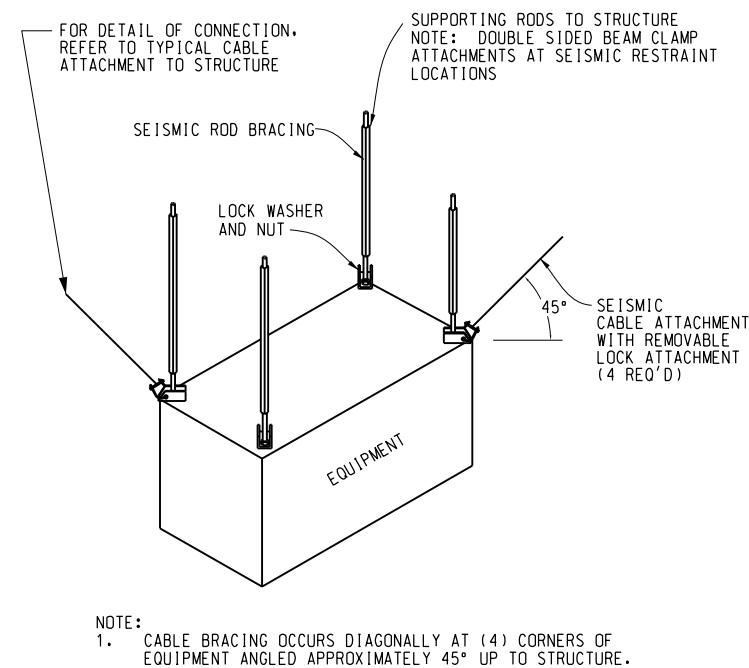
3 RECTANGULAR BRANCH DUCT DETAIL
M601 NOT TO SCALE



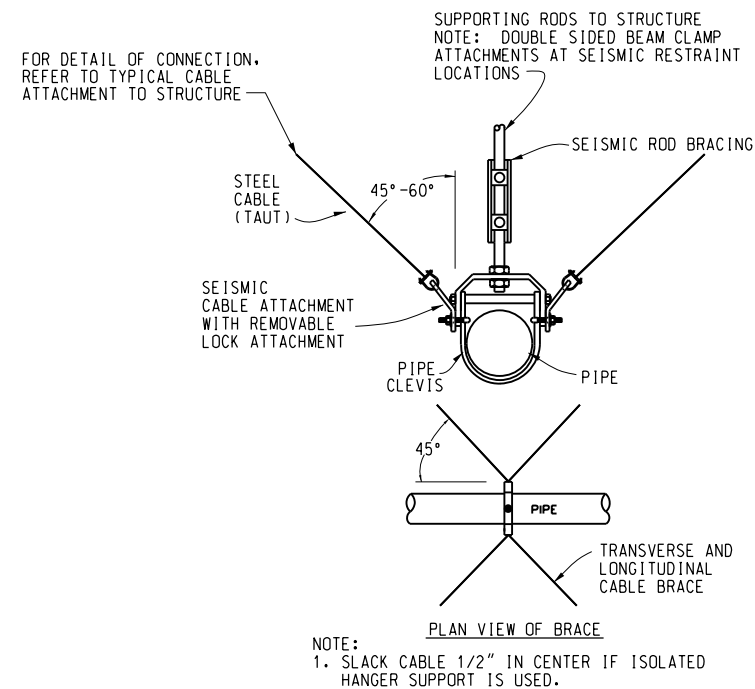
NOTE:
ALL DUCTWORK TO BE SUPPORTED PER LATEST EDITION OF "SMACNA HVAC DUCT CONSTRUCTION STANDARDS"

6 DUCT HANGER DETAIL
M601 NOT TO SCALE

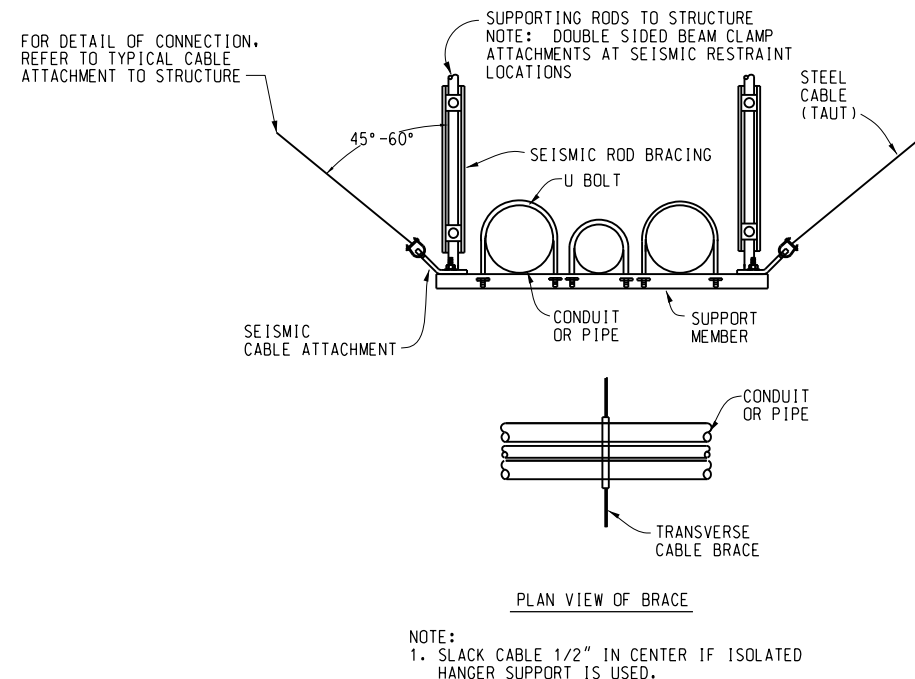
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		CHECKED WHH				TRI-D-ATCT-M601																																																																																												
<div></div> <div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00</div>																																																																																																		



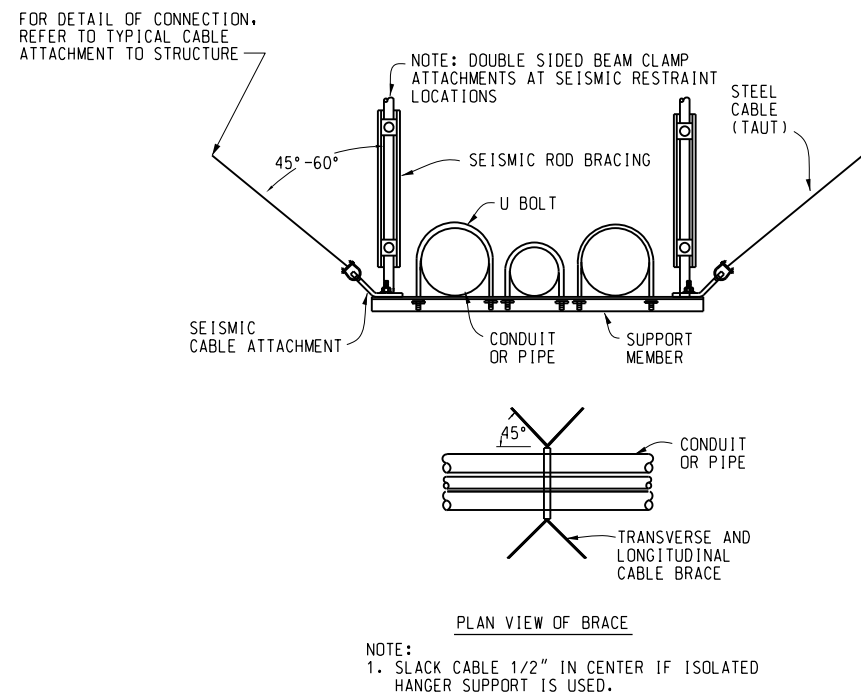
1
M615
TYPICAL SEISMIC RESTRAINT OF CEILING HUNG EQUIPMENT
NOT TO SCALE



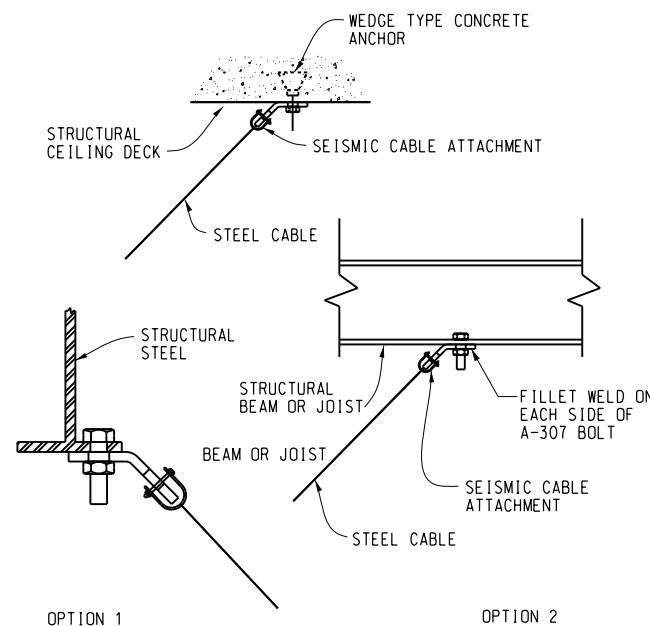
2
M615
TRANSVERSE & LONGITUDINAL CABLE BRACE CLEVIS HUNG PIPING & CONDUIT
NOT TO SCALE



3
M615
TRANSVERSE CABLE BRACE FOR TRAPEZE HUNG PIPING & CONDUIT
NOT TO SCALE

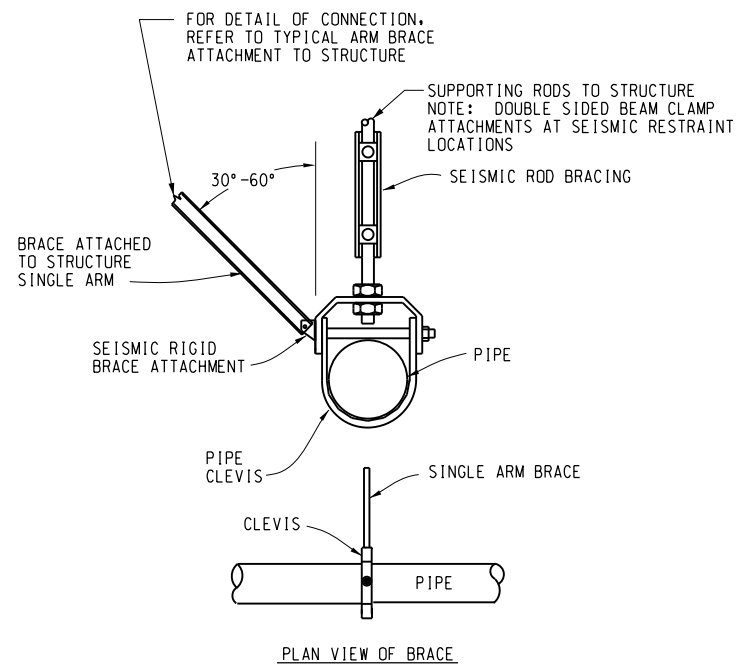


4
M615
TRANSVERSE & LONGITUDINAL CABLE BRACE FOR TRAPEZE HUNG PIPING & CONDUIT
NOT TO SCALE



5
M615
TYPICAL CABLE ATTACHMENT TO STRUCTURE
NOT TO SCALE

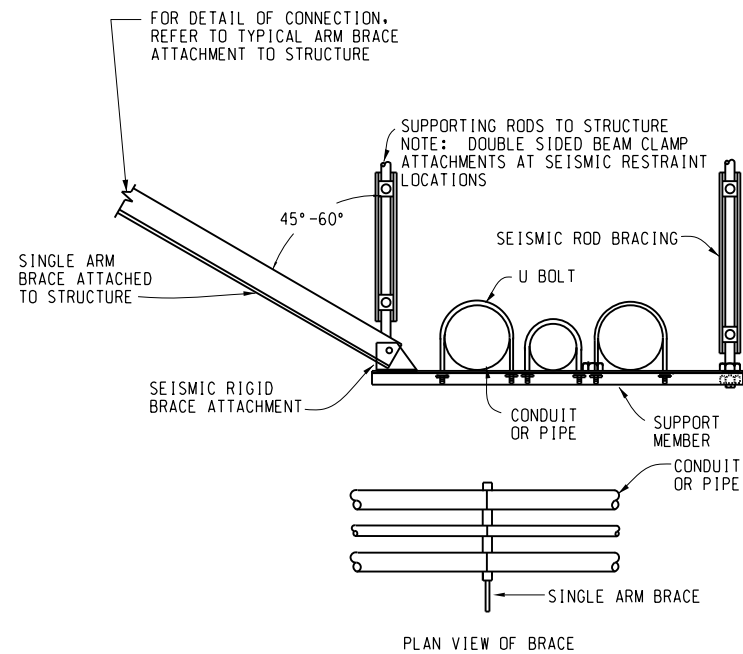
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REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD				
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SEISMIC DETAILS									
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN									
REVIEWED BY		SUBMITTED BY			APPROVED BY				
		BOB BODRAN			MARK BEEKMAN				
		DESIGNED NJ			ISSUED BY		DATE 6/7/2012		JCN 701374
		DRAWN GTC			ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		REV
		CHECKED WHH			TRI-D-ATCT-M615				
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00									



NOTE: 1. CANNOT BE USED WITH ISOLATION HANGERS.

1
M616
NOT TO SCALE

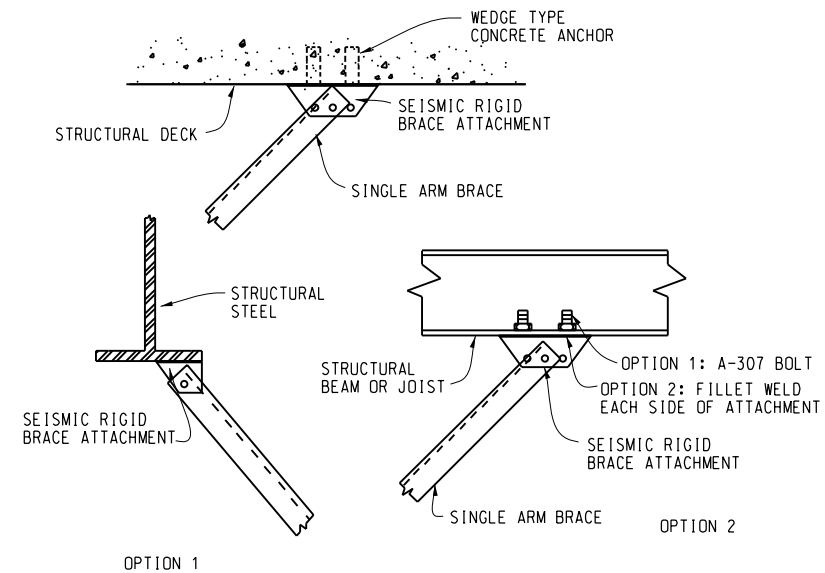
TRANSVERSE ARM BRACE FOR
CLEVIS HUNG PIPING & CONDUIT



NOTE: 1. CANNOT BE USED WITH ISOLATION HANGERS.

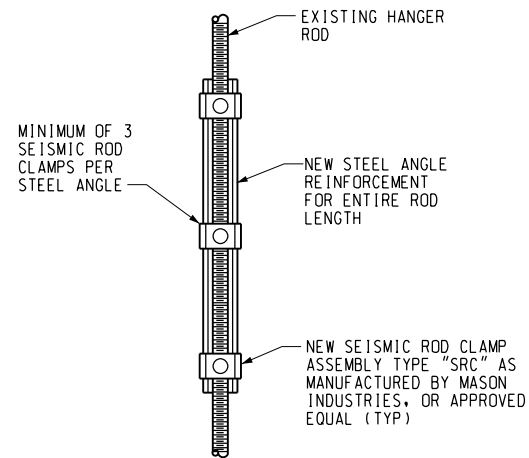
2
M616
NOT TO SCALE

TRANSVERSE SINGLE ARM BRACE
FOR TRAPEZE HUNG PIPING & CONDUIT



3
M616
NOT TO SCALE


TYPICAL ARM BRACE
ATTACHMENT TO STRUCTURE



4
M616
NOT TO SCALE

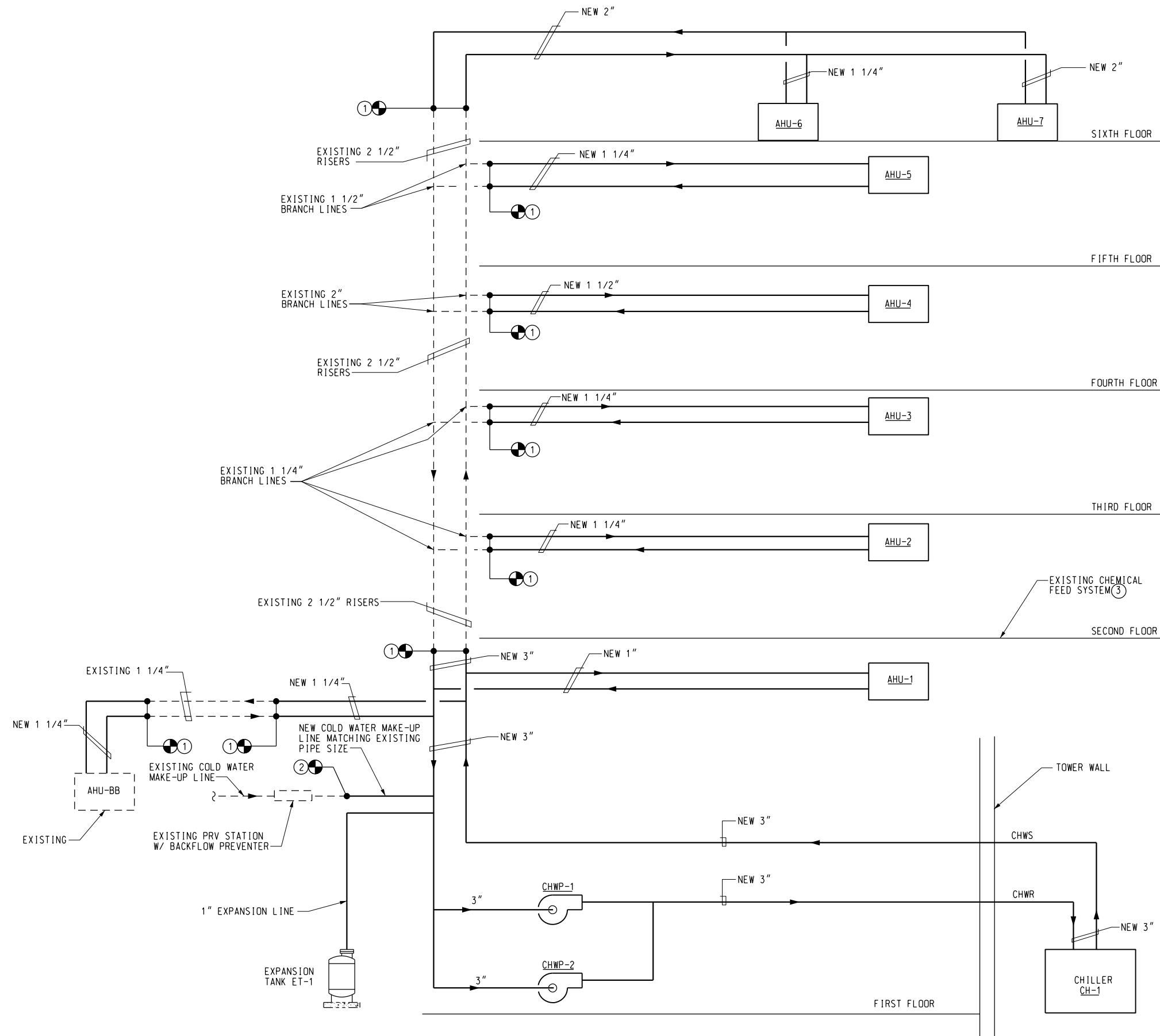
SEISMIC ROD
BRACING DETAIL

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD
<p align="center">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</p> <p align="center">TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SEISMIC DETAILS</p> <p align="center">BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN</p>									
REVIEWED BY		SUBMITTED BY					APPROVED BY		
		BOB BODRAN					MARK BEEKMAN		
DESIGNED		NJ		ISSUED BY		DATE		JCN	
DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012		701374	
CHECKED		WHH				DRAWING NO		REV	
						TRI-D-ATCT-M616			



7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00




1 CHILLED WATER FLOW DIAGRAM
M700 NOT TO SCALE

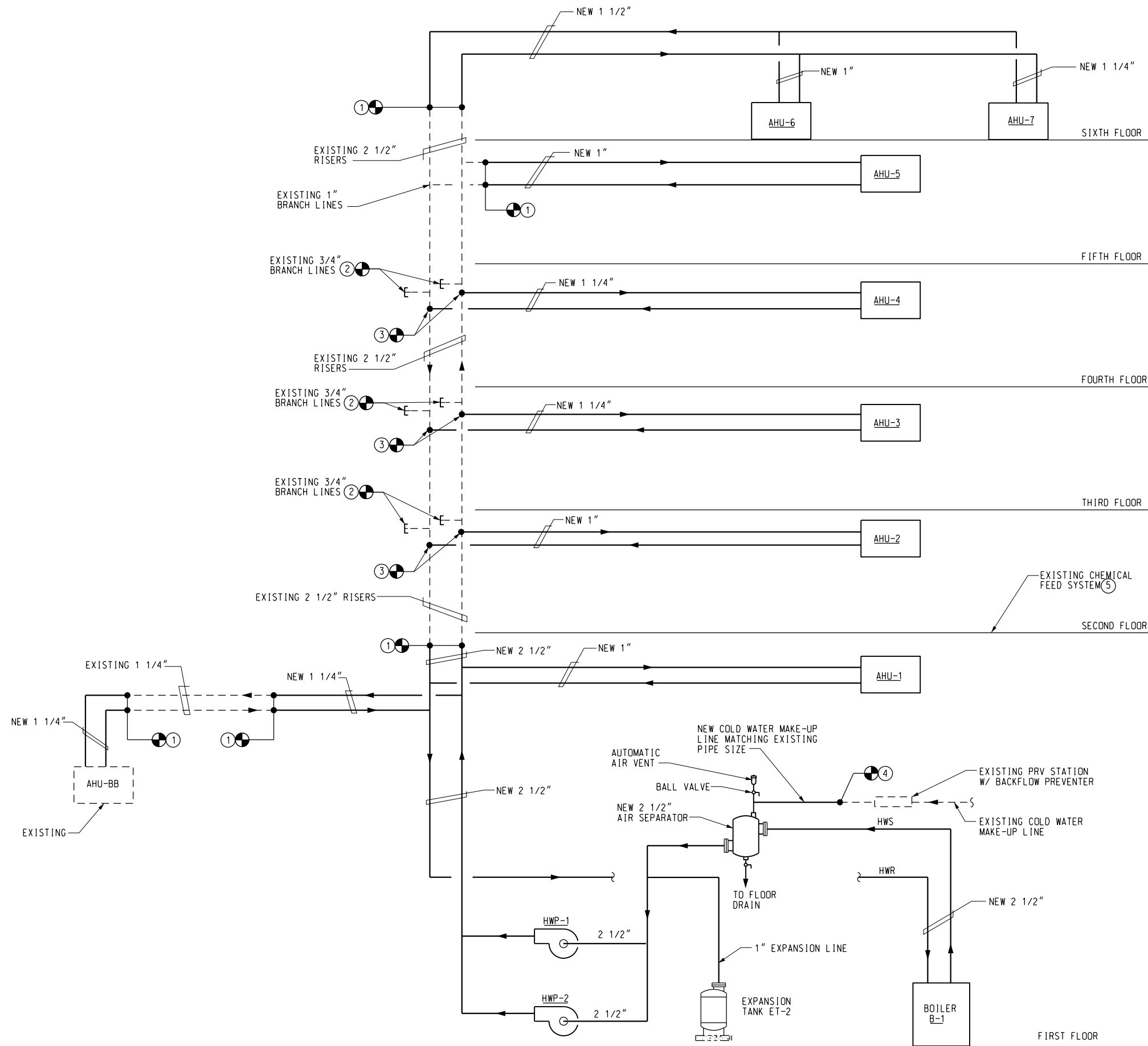
NOTES

- 1 CONNECT NEW CHILLED WATER SUPPLY AND RETURN PIPING TO EXISTING PIPING AT THIS APPROXIMATE LOCATION. PROVIDE NEW PIPE REDUCER AS REQUIRED.
- 2 THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND EXACT LOCATION OF THE EXISTING PRESSURE REDUCING VALVE STATION AND BACKFLOW PREVENTER AT THE POINT OF COLD WATER MAKE-UP LINE CONNECTION. THE LOCATION OF THE POINT OF CONNECTION MAY BE MODIFIED AT THE CONTRACTOR'S OPTION TO FACILITATE THE INSTALLATION OF NEW WORK.
- 3 EXISTING CHEMICAL POT FEEDER AND PIPING IN THE SECOND FLOOR MECHANICAL ROOM SHALL BE REUSED FOR CHILLED WATER SYSTEM.

GENERAL NOTES (THIS DRAWING)

- A. PROVIDE AIR VENTS AT ALL HIGH POINTS IN THE CHILLED WATER PIPING SYSTEM.
- B. REFER TO HVAC DETAIL DRAWINGS FOR VALVES, PIPING AND ACCESSORIES REQUIRED AT EQUIPMENT CONNECTIONS.
- C. REFER TO DRAWINGS M806 AND M807 FOR DDC CONTROL POINTS OF CHILLED WATER SYSTEM.
- D. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																																																																																																		
<table><tr><td>REV</td><td>APPROVED DATE</td><td colspan="4">DESCRIPTION</td><td>JCN</td><td>REDLINE DATE</td><td>APVD</td></tr><tr><td colspan="10">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</td></tr><tr><td colspan="10">TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CHILLED WATER FLOW DIAGRAM</td></tr><tr><td colspan="10">BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN</td></tr><tr><td colspan="2">REVIEWED BY</td><td colspan="4">SUBMITTED BY BOB BODRAN</td><td colspan="4">APPROVED BY MARK BEEKMAN</td></tr><tr><td colspan="2"></td><td colspan="4"></td><td colspan="4"></td></tr><tr><td colspan="2"></td><td colspan="2">DESIGNED NJ</td><td colspan="2">ISSUED BY</td><td colspan="2">DATE 6/7/2012</td><td colspan="2">JCN 701374</td></tr><tr><td colspan="2"></td><td colspan="2">DRAWN GTC</td><td colspan="2">ATLANTA TERMINAL ENGINEERING CENTER</td><td colspan="2">DRAWING NO</td><td colspan="2">REV</td></tr><tr><td colspan="2"></td><td colspan="2">CHECKED WHH</td><td colspan="2"></td><td colspan="2">TRI-D-ATCT-M700</td><td colspan="2"></td></tr></table>										REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD	DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION										TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CHILLED WATER FLOW DIAGRAM										BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN										REVIEWED BY		SUBMITTED BY BOB BODRAN				APPROVED BY MARK BEEKMAN																DESIGNED NJ		ISSUED BY		DATE 6/7/2012		JCN 701374				DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		REV				CHECKED WHH				TRI-D-ATCT-M700			
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<div><p>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00</p></div>																																																																																																		



1 HEATING HOT WATER FLOW DIAGRAM
M701 NOT TO SCALE

NOTES

- 1 CONNECT NEW HEATING HOT WATER SUPPLY AND RETURN PIPING TO EXISTING PIPING AT THIS APPROXIMATE LOCATION. PROVIDE NEW PIPE REDUCER AS REQUIRED.
- 2 PROVIDE NEW PIPE CAP AND INSULATION AT EXISTING OPEN END BRANCH LINES.
- 3 CONNECT NEW BRANCH LINES TO EXISTING PIPE RISERS AT THIS APPROXIMATE LOCATION. PROVIDE NEW TEE AT THE POINT OF CONNECTION.
- 4 THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND EXACT LOCATION OF THE EXISTING PRESSURE REDUCING VALVE STATION AND BACKFLOW PREVENTER AT THE POINT OF COLD WATER MAKE-UP LINE CONNECTION. THE LOCATION OF THE POINT OF CONNECTION MAY BE MODIFIED AT THE CONTRACTOR'S OPTION TO FACILITATE THE INSTALLATION OF NEW WORK.
- 5 EXISTING CHEMICAL POT FEEDER AND PIPING IN THE SECOND FLOOR MECHANICAL ROOM SHALL BE REUSED FOR HEATING HOT WATER SYSTEM.

GENERAL NOTES (THIS DRAWING)

- A. PROVIDE AIR VENTS AT ALL HIGH POINTS IN THE HEATING HOT WATER PIPING SYSTEM.
- B. REFER TO HVAC DETAIL DRAWINGS FOR VALVES, PIPING AND ACCESSORIES REQUIRED AT EQUIPMENT CONNECTIONS.
- C. REFER TO DRAWINGS M808 AND M809 FOR DDC CONTROL POINTS OF HEATING HOT WATER SYSTEM.
- D. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.

REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL HEATING HOT WATER FLOW DIAGRAM					
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI) TN		
REVIEWED BY		SUBMITTED BY		APPROVED BY	
		BOB BODRAN		MARK BEEKMAN	
DESIGNED		ISSUED BY		DATE	
NJ		ATLANTA TERMINAL		6/7/2012	
DRAWN		ENGINEERING CENTER		JCN	
GTC				701374	
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				TRI-D-ATCT- M701	
				REV	

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328
HEI JOB NUMBER: 11020.00

1. ALL WORK RELATED TO THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE DONE BY A LICENSED FIRE ALARM CONTRACTOR. NEW DUCT-MOUNTED SMOKE DETECTOR SHALL BE PROVIDED AND WIRED BY FIRE ALARM CONTRACTOR AND MOUNTED BY MECHANICAL CONTRACTOR. SEE DRAWING M801 FOR SEQUENCE OF OPERATION.
2. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.



REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CONTROL SYSTEM DIAGRAM AHU-1, AHU-2 & AHU-6									
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)						TN	
REVIEWED BY		SUBMITTED BY					APPROVED BY		
		BOB BODRAN					MARK BEEKMAN		
		DESIGNED	NJ	ISSUED BY	DATE	6/7/2012	JCN	701374	
		DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT- M800	
		CHECKED	WHH						

GENERAL

- THE NEW HVAC CONTROL SYSTEM SHALL BE DIRECT DIGITAL CONTROL (DDC) SYSTEM, AS MANUFACTURED BY TAC AMERICAS.
- NEW THERMOSTATS SHALL BE BY TAC AMERICAS, WALL-MOUNTED ALPHANUMERIC DISPLAY WITH ADJUSTABLE DDC DETERMINED BAND.
- PROVIDE THE NEW DDC CENTRAL WORKSTATION IN THE AFSFO BUILDING WHERE DIRECTED BY THE FAA RESIDENT ENGINEER.
- PROVIDE A REMOTE ACCESS POINT IN THE AF OFFICE. COORDINATE THE EXACT LOCATION WITH THE RESIDENT ENGINEER.
- THE CONTROLS FOR THE AFSFO BUILDING HVAC SYSTEMS ARE NOT TO BE INCLUDED IN THE DDC SYSTEM.

SEQUENCE OF OPERATION

AHU-1, AHU-2 AND AHU-6

- EACH AIR HANDLING UNIT SHALL BE STARTED AND CONTROLLED DIRECTLY BY A PANEL MOUNTED PROCESS CONTROL UNIT (PCU). THE PCU SHALL CONTROL OPERATIONS TO MAINTAIN SPACE TEMPERATURE CONDITION AS MEASURED BY SPACE TEMPERATURE SENSOR LOCATED ON EACH FLOOR AND EACH ZONE AS INDICATED.
- DURING OCCUPIED MODE, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE HEATING AND COOLING COIL CONTROL VALVES SHALL BE MODULATED IN SEQUENCE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.
- DURING UNOCCUPIED MODE, THE SUPPLY FAN SHALL BE CYCLED BY THE SYSTEM'S NIGHT SETBACK TO MAINTAIN 55°F (ADJUSTABLE) MINIMUM HEATING SPACE TEMPERATURE AND 80°F (ADJUSTABLE) MAXIMUM COOLING TEMPERATURE.
- MOTOR OPERATED DAMPER (MOD) FOR OUTSIDE AIR SHALL BE CONTROLLED BY THE DDC SYSTEM. MOD SHALL BE OPEN TO PRESET POSITION (DETERMINED BY TAB CONTRACTOR) IN OCCUPIED MODE AND SHALL BE CLOSED IN UNOCCUPIED MODE.
- THE LOW TEMPERATURE PROTECTION THERMOSTAT SHALL STOP THE SUPPLY FAN IF THE MIXED AIR TEMPERATURE ENTERING THE COOLING COIL DROPS BELOW 40°F (ADJUSTABLE). UPON STOPPING THE SUPPLY FAN BECAUSE OF LOW AIR TEMPERATURE, THE DDC SYSTEM SHALL CLOSE THE OUTSIDE AIR DAMPER AND INITIATE AN ALARM.
- SMOKE DETECTOR IN THE SUPPLY AIR DUCTWORK SHALL STOP SUPPLY FAN AND INITIATE AN ALARM TO THE FIRE ALARM SYSTEM IF SMOKE IS DETECTED. RESTARTING THE SUPPLY FAN SHALL REQUIRE MANUAL RESET AT THE SMOKE DETECTOR.
- THE CONTROL SYSTEM SETPOINTS AND DEADBANDS SHALL BE ADJUSTABLE, AND SHALL BE SET AS FOLLOWS:


<u>ROOM</u>	<u>SETPPOINT SUMMER/WINTER</u>	<u>DEADBAND SUMMER/WINTER</u>
OFFICE, FIRST FLOOR	75°F/75°F	-2°F/+2°F
OFFICE, SECOND FLOOR	75°F/75°F	-2°F/+2°F
READY ROOM, SIXTH FLOOR	75°F/75°F	-2°F/+2°F

[illegible]

NOTE

1. COIL GPM SHALL BE DERIVED BY COIL DATA AND DIFFERENTIAL PRESSURE.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
REV	APPROVED DATE		DESCRIPTION				JCN	REDLINE DATE	AFVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SEQUENCE OF OPERATION AHU-1, AHU-2 & AHU-6									
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)				TN		
REVIEWED BY		SUBMITTED BY				APPROVED BY			
		BOB BODRAN				MARK BEEKMAN			
		DESIGNED NJ		ISSUED BY		DATE 6/7/2012		JCN	701374
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO			REV
		CHECKED WHH							
TRI-D-ATCT-M801									



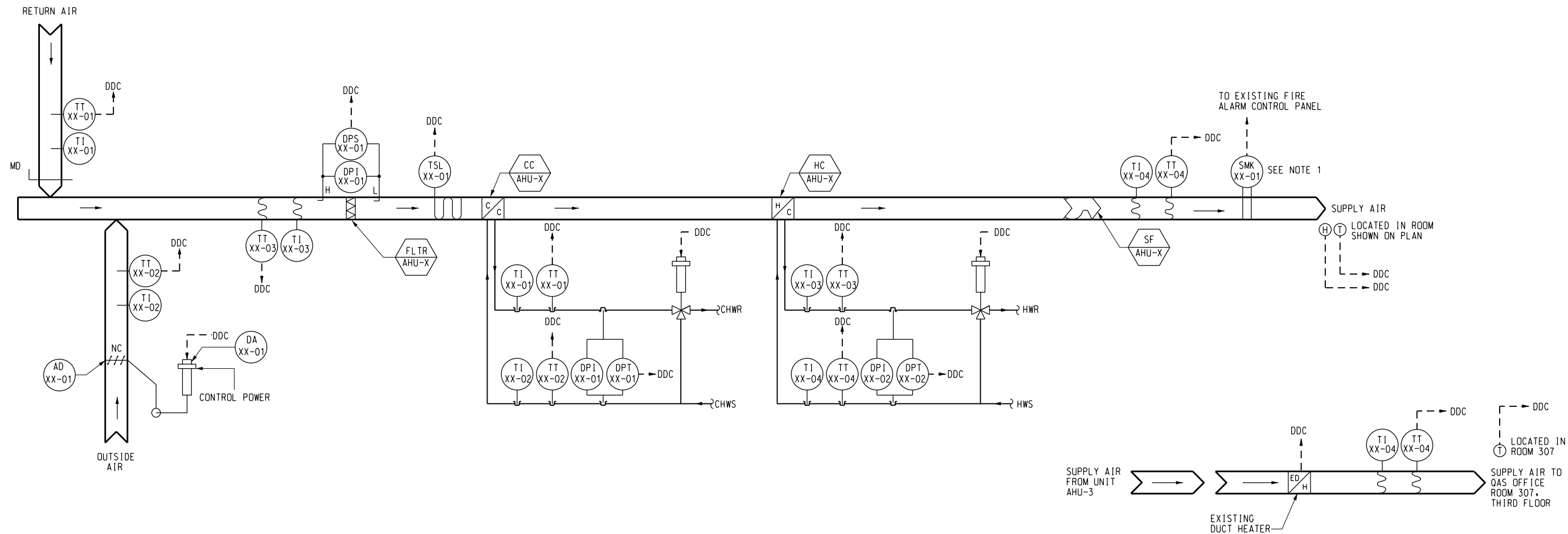
HARTRAMF

7000 CENTRAL PARKWAY, SUITE 1475
 ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

NOTES

1. ALL WORK RELATED TO THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE DONE BY A LICENSED FIRE ALARM CONTRACTOR. NEW DUCT-MOUNTED SMOKE DETECTOR SHALL BE PROVIDED AND WIRED BY FIRE ALARM CONTRACTOR AND MOUNTED BY MECHANICAL CONTRACTOR. SEE DRAWING M803 FOR SEQUENCE OF OPERATION.
2. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.



1 CONTROL SYSTEM DIAGRAM AHU-3, AHU-4 & AHU-5
M802 NOT TO SCALE

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																	
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD								
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																	
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CONTROL SYSTEM DIAGRAM AHU-3, AHU-4 & AHU-5																	
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)					TN									
REVIEWED BY		SUBMITTED BY				APPROVED BY											
		BOB BODRAN				MARK BEEKMAN											
		DESIGNED NJ		ISSUED BY		DATE 6/7/2012		JCN	701374								
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO			REV								
		CHECKED WHH				TRI-D-ATCT-M802											

HARTRAMPF

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00



7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

HEI JOB NUMBER: 11020.00

- THE NEW HVAC CONTROL SYSTEM SHALL BE DIRECT DIGITAL CONTROL (DDC) SYSTEM, AS MANUFACTURED BY TAC AMERICAS.
- NEW THERMOSTATS SHALL BE BY TAC AMERICAS, WALL-MOUNTED ALPHANUMERIC DISPLAY WITH ADJUSTABLE DDC DETERMINED BAND.
- PROVIDE THE NEW DDC CENTRAL WORKSTATION IN THE AFSFO BUILDING WHERE DIRECTED BY THE FAA RESIDENT ENGINEER.


AHU-3, AHU-4 AND AHU-5

- EACH AIR HANDLING UNIT SHALL BE STARTED AND CONTROLLED DIRECTLY BY A PANEL MOUNTED PROCESS CONTROL UNIT (PCU). THE PCU SHALL CONTROL OPERATIONS TO MAINTAIN SPACE TEMPERATURE CONDITION AS MEASURED BY SPACE TEMPERATURE SENSOR LOCATED ON EACH FLOOR AND EACH ZONE AS INDICATED.
- DURING OCCUPIED MODE, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE HEATING AND COOLING COIL CONTROL VALVES SHALL BE MODULATED IN SEQUENCE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.
- DURING UNOCCUPIED MODE, THE SUPPLY FAN SHALL BE CYCLED BY THE SYSTEM'S NIGHT SETBACK, TO MAINTAIN 55°F (ADJUSTABLE) MINIMUM HEATING SPACE TEMPERATURE AND 80°F (ADJUSTABLE) MAXIMUM COOLING TEMPERATURE.
- MOTOR OPERATED DAMPER (MOD) FOR OUTSIDE AIR SHALL BE CONTROLLED BY THE DDC SYSTEM. MOD SHALL BE OPENED TO A PRESET POSITION (DETERMINED BY TAB CONTRACTOR) IN OCCUPIED MODE AND SHALL BE CLOSED IN UNOCCUPIED MODE.
- THE LOW TEMPERATURE PROTECTION THERMOSTAT SHALL STOP THE SUPPLY FAN IF THE MIXED AIR TEMPERATURE ENTERING THE COOLING COIL DROPS BELOW 40°F (ADJUSTABLE). UPON STOPPING THE SUPPLY FAN BECAUSE OF LOW AIR TEMPERATURE, THE DDC SYSTEM SHALL CLOSE THE OUTSIDE AIR DAMPER AND INITIATE AN ALARM.
- SMOKE DETECTOR IN THE SUPPLY AIR DUCTWORK SHALL STOP SUPPLY FAN AND INITIATE AN ALARM TO THE FIRE ALARM SYSTEM IF SMOKE IS DETECTED. RESTARTING THE SUPPLY FAN SHALL REQUIRE MANUAL RESET AT THE SMOKE DETECTOR.
- EXISTING ELECTRIC DUCT HEATER SERVING GAS OFFICE (THIRD FLOOR) SHALL BE ENERGIZED BY DDC SYSTEM WHEN TEMPERATURE FALLS BELOW THE SPACE TEMPERATURE SETPOINT. STATUS OF HEATER VIA CURRENT SENSOR SHALL REPORT BACK TO THE DDC SYSTEM. THE ELECTRIC DUCT HEATER SHALL BE INTERLOCKED WITH AHU-3 SUPPLY FAN SO THAT THE DUCT HEATER CANNOT OPERATE UNLESS THE SUPPLY FAN IS ON.
- HUMIDITY CONTROL: DEHUMIDIFICATION SHALL BE ACCOMPLISHED VIA THE DDC SYSTEM SUCH THAT THE HUMIDITY SENSED IN THE ELECTRONIC EQUIPMENT ROOMS (THIRD & FOURTH FLOORS) AND TRACON (FIFTH) AUTOMATICALLY CONTROLS THE OPERATION OF THE COOLING CONTROL VALVE AND HEATING VALVE SHALL BE MODULATED OPEN TO REDUCE HUMIDITY, AT ANY TIME THAT THE SPACE HUMIDITY RISES TO 55 PERCENT (ADJUSTABLE) OR GREATER, HUMIDITY CONTROL SHALL OVERRIDE THE TEMPERATURE CONTROL TO INCREASE THE COOLING AND ACTIVATE THE HEATING TO REHEAT THE AIR UNTIL SPACE HUMIDITY FALLS TO 50 PERCENT (ADJUSTABLE). THEN, CYCLE SHALL STOP AND RETURN TO NORMAL OPERATION. IF THE TEMPERATURE DEVIATES FROM SETPOINT BY 3 DEGREES F OR MORE (ADJUSTABLE), DISCONTINUE DEHUMIDIFICATION OVERRIDE.
- THE CONTROL SYSTEM SETPOINTS AND DEADBANDS SHALL BE ADJUSTABLE, AND SHALL BE SET AS FOLLOWS:

<u>ROOM</u>	<u>SETPOINT SUMMER/WINTER</u>	<u>DEADBAND SUMMER/WINTER</u>
ELECTRONIC EQUIPMENT, THIRD FLOOR	73°F/73°F	-2°F/+2°F
OAS OFFICE, THIRD FLOOR	75°F/75°F	-2°F/+2°F
ELECTRONIC EQUIPMENT, FOURTH FLOOR	73°F/73°F	-2°F/+2°F
TRACON, FIFTH FLOOR	73°F/73°F	-2°F/+2°F

[illegible]


1. COIL GPM SHALL BE DERIVED BY COIL DATA AND DIFFERENTIAL PRESSURE.

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.										
										
	REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD	
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION										
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SEQUENCE OF OPERATION AHU-3, AHU-4 & AHU-5										
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN										
REVIEWED BY		SUBMITTED BY				APPROVED BY				
		BOB BODRAN				MARK BEEKMAN				
		DESIGNED		NJ	ISSUED BY		DATE	6/7/2012	JCN	701374
		DRAWN		GTC	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-M803	
		CHECKED		WHH						
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328										
HEI JOB NUMBER: 11020.00										

1. NEW DUCT-MOUNTED SMOKE DETECTOR SHALL BE PROVIDED AND ALL WORK RELATED TO THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE DONE BY A LICENSED FIRE ALARM CONTRACTOR. WIRED BY FIRE ALARM CONTRACTOR AND MOUNTED BY MECHANICAL CONTRACTOR. SEE DRAWING M805 FOR SEQUENCE OF OPERATION.
2. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.



REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD	
<p align="center">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</p>										
<p align="center">TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CONTROL SYSTEM DIAGRAM AHU-7</p>										
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI)						TN	
REVIEWED BY	SUBMITTED BY					APPROVED BY				
	BOB BODRAN					MARK BEEKMAN				
	DESIGNED	NJ	ISSUED BY			DATE	6/7/2012	JCN	701374	
	DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER			DRAWING NO		REV		
	CHECKED	WHH						TRI-D-ATCT-M804		

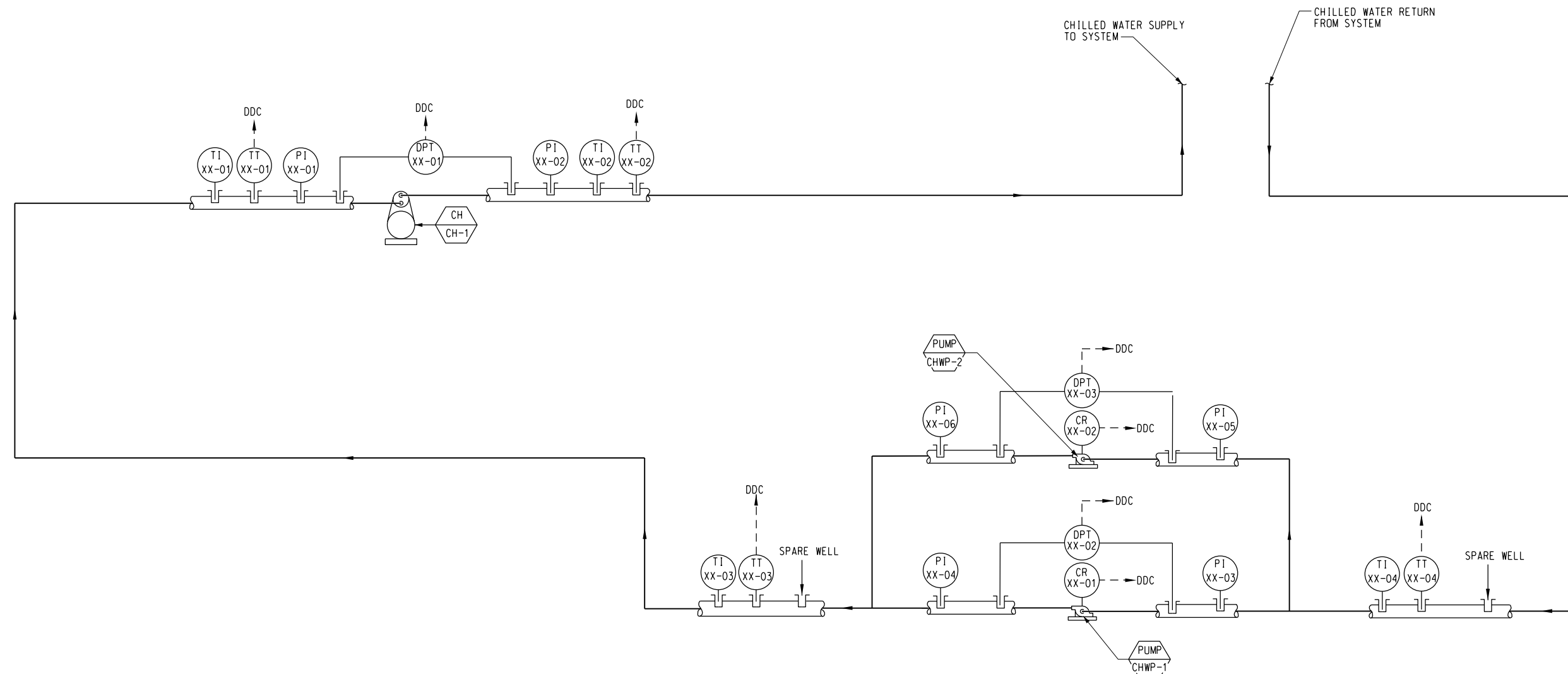


**7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328**

HEL JOB NUMBER: 11020.00

NOTE

1. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.



1 CONTROL SYSTEM DIAGRAM - CHILLED WATER

M806 NOT TO SCALE

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.

REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD	
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CONTROL SYSTEM DIAGRAM - CHILLED WATER									
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)						TN	
REVIEWED BY		SUBMITTED BY				APPROVED BY			
		BOB BODRAN				MARK BEEKMAN			
		DESIGNED NJ		ISSUED BY		DATE 6/7/2012		JCN	701374
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-M806	
		CHECKED WHH						REV	




7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

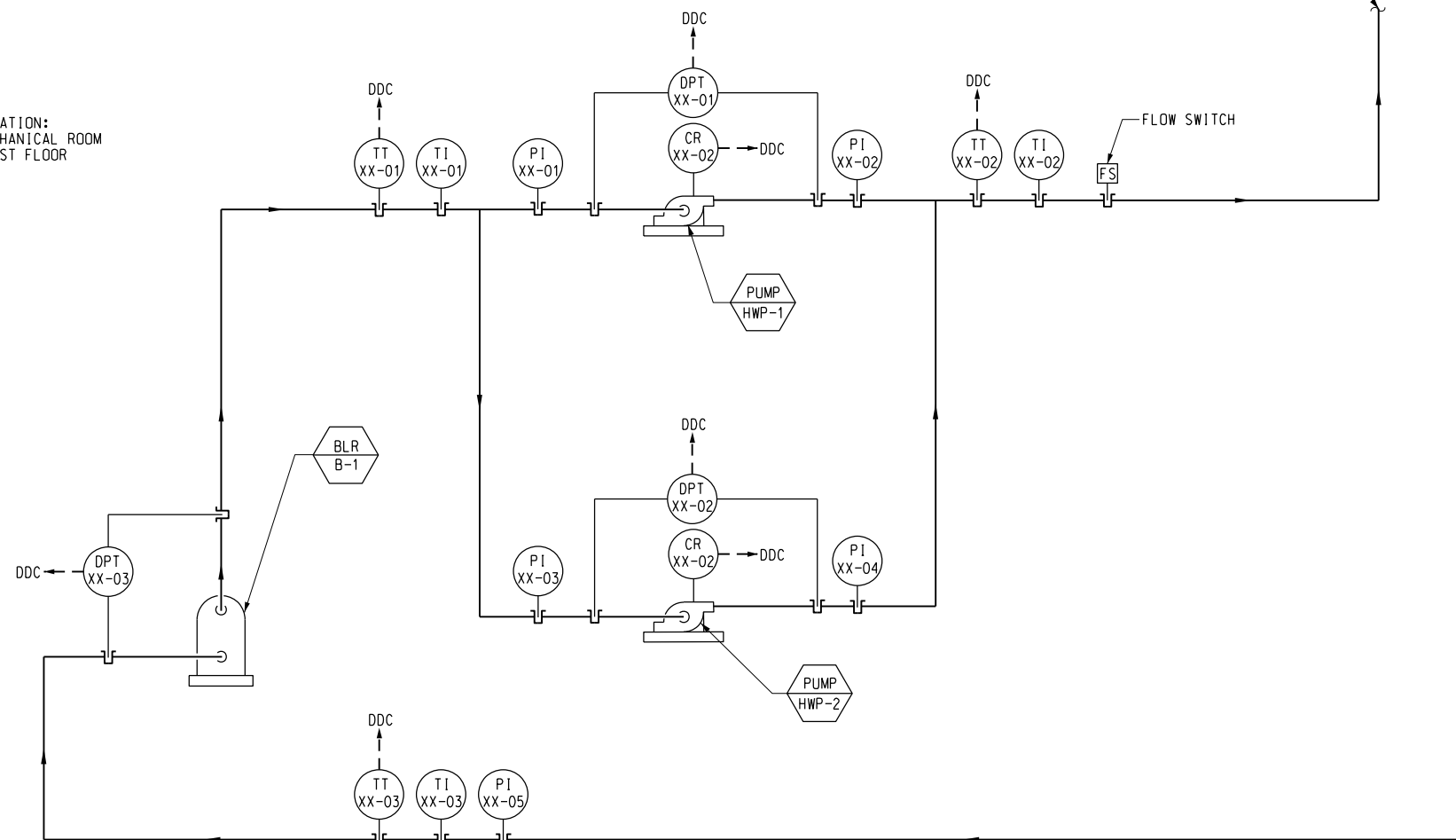
HEI JOB NUMBER: 11020.00

- THE CHILLER AND CHILLED WATER PUMP SYSTEM SHALL BE CONTROLLED BY THE TAC AMERICAS DIRECT DIGITAL CONTROL (DDC) SYSTEM. THE DDC SYSTEM SHALL PROVIDE START/STOP, SETPOINT ADJUSTMENT, AND ALARM MONITORING INTERFACED WITH CHILLER'S FACTORY FURNISHED CONTROL SYSTEM. THE CHILLER'S CONTROL PANEL SHALL PROVIDE OPERATING STATUS AND ALARM INDICATION TO THE DDC SYSTEM. THE CHILLER CONTROL PANEL SHALL ACCEPT START/STOP SIGNAL AND SETPOINT ADJUSTMENTS INDICATED ON THE POINT SCHEDULE. WHENEVER ANY AIR HANDLING UNIT CALLS FOR COOLING, THE DDC SYSTEM SHALL OPERATE THE PRIMARY CHILLED WATER PUMP, AND OPERATE THE CHILLER. THE STAND-BY PUMP SHALL BE OFF.
- THE DDC SYSTEM SHALL ASSIGN PRIMARY AND STAND-BY RESPONSIBILITY TO PUMPS AND SHALL REVERSE THE ASSIGNED RESPONSIBILITY ON THE FIRST DAY OF EVERY MONTH. THE DDC SHALL PROVE THE PUMP STATUS IS ON PRIOR TO STARTING CHILLER. WHEN STARTING CHILLER, THE CORRESPONDING CHILLED WATER PUMP STARTS FIRST IN ASSOCIATION WITH THE CHILLER SHALL START. THE OPERATION OF THE CHILLER SHALL BE BY THE CHILLER INTEGRAL CONTROL SYSTEM AND SHALL BE SUBJECT TO THE CHILLER SPECIFIED AND STANDARD SAFETY CONTROLS.
- IN THE EVENT THAT A PRIMARY CHILLED WATER PUMP SHUTS DOWN OR FAILS, THE DDC SYSTEM SHALL REASSIGN THE "STAND-BY" PUMP AS THE "PRIMARY" PUMP TO ENSURE CONTINUED SYSTEM OPERATION. A RESETTABLE FAILURE FLAG SHALL BE PROGRAMMED TO ALERT OF THE FAILURE AT THE DDC DISPLAY(S).
- THE CHILLER SHALL BE FULLY INTERFACED WITH THE DDC SYSTEM VIA LON DEVICE(S). ALL AVAILABLE CHILLER POINTS AND INFORMATION SHALL BE AVAILABLE AT THE DDC COMPUTER INTERFACE.
- WHEN PUMP STATUS IS ON, CURRENT RELAY SHALL CAUSE ALARM WHEN CURRENT LEVEL INDICATES PUMP FAILURE.
- ELECTRIC HEAT TRACE FOR OUTDOOR ABOVEGROUND CHILLED WATER PIPING SHALL BE CONTROLLED AND RUN STATUS MONITORED VIA THE DDC SYSTEM.

[illegible]

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																					
<div></div> <div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</div> <div>HEI JOB NUMBER: 11020.00</div>																					
REV	APPROVED DATE	DESCRIPTION						JCN	REDLINE DATE	APVD											
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SEQUENCE OF OPERATION - CHILLED WATER																					
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)						TN													
REVIEWED BY		SUBMITTED BY					APPROVED BY														
		BOB BODRAN					MARK BEEKMAN														
		DESIGNED		NJ		ISSUED BY		DATE		6/7/2012	JCN	701374									
		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-M807											
		CHECKED		WHH																	

1. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.



1 CONTROL SYSTEM DIAGRAM – HEATING HOT WATER

M808 NOT TO SCALE

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.


[illegible]

7000 CENTRAL PARKWAY, SUITE 1475
ATLANTA, GEORGIA 30328

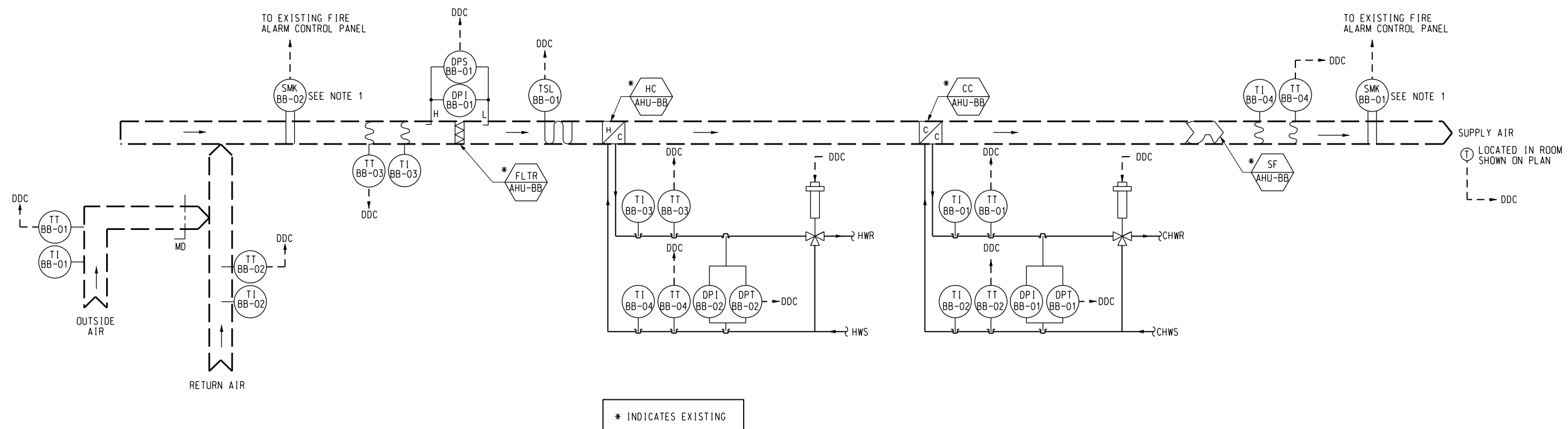
HEI JOB NUMBER: 11020.00

- THE BOILER AND HEATING HOT WATER SYSTEM SHALL BE CONTROLLED BY THE TAC AMERICAS DIRECT DIGITAL CONTROL (DDC) SYSTEM. THE DDC SYSTEM SHALL ACCEPT SIGNALS FROM OUTSIDE AIR TEMPERATURE SENSING ELEMENTS AND TRANSMITTERS AS SHOWN. THE HOT WATER BOILER SHALL ENERGIZE AND HOT WATER PUMP STARTS WHEN THE OUTSIDE AIR TEMPERATURE DROPS TO 45 DEGREES F (ADJUSTABLE). AFTER FLOW IS PROVEN BY THE BOILER FLOW SWITCH, THE BOILER SHALL OPERATE UNDER ITS OWN CONTROL TO MAINTAIN HOT WATER SUPPLY TEMPERATURE AT SETPOINT (ADJUSTABLE). WHEN THE OUTSIDE AIR RISES ABOVE 45 DEGREES F (ADJUSTABLE), THE BOILER AND PUMP SHALL STOP OPERATING. AFTER A TWO-MINUTE (ADJUSTABLE) DELAY, REPORT HOT WATER PUMP AND BOILER STATUS TO THE DDC SYSTEM.
- DURING A CALL FOR DEHUMIDIFICATION BY THE SPACE RELATIVE HUMIDITY SENSOR LOCATED IN CAB, THE HOT WATER PUMP SHALL RUN. WHENEVER THE HOT WATER PUMP IS RUNNING, THE BOILER SHALL BE ENERGIZED.
- THE DDC SYSTEM SHALL ASSIGN ONE HOT WATER PUMP AS A PRIMARY, THE SECOND HOT WATER PUMP AS STAND-BY RESPONSIBILITY AND SHALL REVERSE THE ASSIGNED RESPONSIBILITY ON THE FIRST DAY OF EVERY MONTH. ONLY ONE HOT WATER PUMP SHALL OPERATE.
- IN THE EVENT THAT A PRIMARY HOT WATER PUMP SHUTS DOWN OR FAILS, THE DDC SYSTEM SHALL REASSIGN THE "STAND-BY" PUMP AS THE "PRIMARY" PUMP TO ENSURE CONTINUED SYSTEM OPERATION. A RESETTABLE FAILURE FLAG SHALL BE PROGRAMMED TO ALERT OF THE FAILURE AT THE DDC DISPLAY(S).
- WHEN PUMP STATUS IS ON, CURRENT RELAY SHALL CAUSE ALARM WHEN CURRENT LEVEL INDICATES PUMP FAILURE.

[illegible]


SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.															
<div style="text-align: center;">  </div>															
REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD							
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION															
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SEQUENCE OF OPERATION - HEATING HOT WATER															
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)						TN							
REVIEWED BY		SUBMITTED BY				APPROVED BY									
		BOB BODRAN				MARK BEEKMAN									
		DESIGNED		NJ		ISSUED BY		DATE							
		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012							
		CHECKED		WHH		DRAWING NO		701374							
								TRI-D-ATCT-M809							
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328															
HEI JOB NUMBER: 11020.00															

1. ALL WORK RELATED TO THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE DONE BY A LICENSED FIRE ALARM CONTRACTOR. NEW DUCT-MOUNTED SMOKE DETECTOR SHALL BE PROVIDED AND WIRED BY FIRE ALARM CONTRACTOR AND MOUNTED BY MECHANICAL CONTRACTOR. SEE DRAWING M811 FOR SEQUENCE OF OPERATION.
2. FOR HVAC LEGEND AND GENERAL NOTES, SEE DRAWING M000.



1 CONTROL SYSTEM DIAGRAM EXISTING AHU-BB

M810 NOT TO SCALE

SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.															
															
REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD							
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION															
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL CONTROL SYSTEM DIAGRAM EXISTING AHU-BB															
BLOUNTVILLE						TRI-CITIES REGIONAL AIRPORT (TRI)		TN							
REVIEWED BY		SUBMITTED BY				APPROVED BY									
		BOB BODRAN				MARK BEEKMAN									
		DESIGNED		NJ		ISSUED BY		DATE							
		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012							
		CHECKED		WHH		DRAWING NO		JCN 701374							
								TRI-D-ATCT- M810							
								REV							

7000 CENTRAL PARKWAY, SUITE 1475
 ATLANTA, GEORGIA 30328
 TEL JOB NUMBER: 11020.00


- THE NEW HVAC CONTROL SYSTEM FOR EXISTING AIR HANDLING UNIT AHU-BB SHALL BE DIRECT DIGITAL CONTROL (DDC) SYSTEM, AS MANUFACTURED BY TAC AMERICAS. THE EXISTING AHU-BB IS TRANE BLOWER COIL AIR HANDLER, MODEL BCHC072E1 WITH TRACER ZN010 CONTROL AND TIED INTO THE EXISTING PNEUMATIC CONTROL SYSTEM.
- NEW THERMOSTATS SHALL BE BY TAC AMERICAS. WALL-MOUNTED ALPHANUMERIC DISPLAY WITH ADJUSTABLE DDC DETERMINED BAND.
- PROVIDE THE NEW DDC CENTRAL WORKSTATION IN THE AFSFO BUILDING WHERE DIRECTED BY THE FAA RESIDENT ENGINEER.

- AIR HANDLING UNIT SHALL BE STARTED AND CONTROLLED DIRECTLY BY A PANEL MOUNTED PROCESS CONTROL UNIT (PCU). THE PCU SHALL CONTROL OPERATIONS TO MAINTAIN SPACE TEMPERATURE CONDITION AS MEASURED BY SPACE TEMPERATURE SENSOR LOCATED IN ROOM SHOWN ON PLAN.
- DURING OCCUPIED MODE, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AND THE HEATING AND COOLING COIL CONTROL VALVES SHALL BE MODULATED IN SEQUENCE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.
- DURING UNOCCUPIED MODE, THE SUPPLY FAN SHALL BE CYCLED BY THE SYSTEM'S NIGHT SETBACK, TO MAINTAIN 55°F (ADJUSTABLE) MINIMUM HEATING SPACE TEMPERATURE AND 80°F (ADJUSTABLE) MAXIMUM COOLING TEMPERATURE.
- THE LOW TEMPERATURE PROTECTION THERMOSTAT SHALL STOP THE SUPPLY FAN IF THE MIXED AIR TEMPERATURE ENTERING THE COOLING COIL DROPS BELOW 40°F (ADJUSTABLE). UPON STOPPING THE SUPPLY FAN BECAUSE OF LOW AIR TEMPERATURE, THE DDC SYSTEM SHALL CLOSE THE OUTSIDE AIR DAMPER AND INITIATE AN ALARM.
- SMOKE DETECTOR IN THE SUPPLY AIR DUCTWORK SHALL STOP SUPPLY FAN AND INITIATE AN ALARM TO THE FIRE ALARM SYSTEM IF SMOKE IS DETECTED. RESTARTING THE SUPPLY FAN SHALL REQUIRE MANUAL RESET AT THE SMOKE DETECTOR.
- THE CONTROL SYSTEM SETPOINTS AND DEADBANDS SHALL BE ADJUSTABLE, AND SHALL BE SET AS FOLLOWS:

[illegible]

1. COIL GPM SHALL BE DERIVED BY COIL DATA AND DIFFERENTIAL PRESSURE.

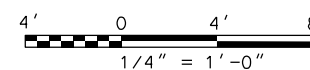
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.					
REV	APPROVED DATE	DESCRIPTION		JCN	REDLINE DATE APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT MECHANICAL SEQUENCE OF OPERATION EXISTING AHU-BB					
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)			TN
REVIEWED BY	SUBMITTED BY		APPROVED BY		
	BOB BODRAN		MARK BEEKMAN		
	DESIGNED	NJ	ISSUED BY	DATE	JCN
	DRAWN	GTC	ATLANTA TERMINAL ENGINEERING CENTER	6/7/2012	701374
	CHECKED	WHH	DRAWING NO	REV	
				TRI-D-ATCT-M811	



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 ATLANTA, GEORGIA 30328

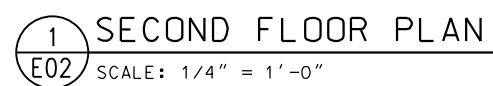
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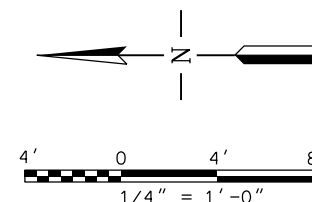
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.


CHECKED FOR CONFLICTS WITH OTHER PROJECTS																					
REV	APPROVED DATE		DESCRIPTION										JCN		REDLINE DATE		APVD				
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL FIRST FLOOR PLAN																					
BLOUNTVILLE					TRI-CITIES REGIONAL AIRPORT (TRI)										TN						
REVIEWED BY			SUBMITTED BY										APPROVED BY								
			BOB BODRAN										MARK BEEKMAN								
			DESIGNED		T.J.H.		ISSUED BY				DATE		6/7/2012		JCN		701374				
			DRAWN		CRK		ATLANTA TERMINAL ENGINEERING CENTER				DRAWING NO						REV				
			CHECKED		T.J.H.												TRI-D-ATCT- E101				

① NEW CIRCUIT BREAKERS SHALL MATCH EXISTING BREAKERS OF SIMILAR FRAME SIZE, INCLUDING SHORT CIRCUIT INTERRUPTION CAPACITY.



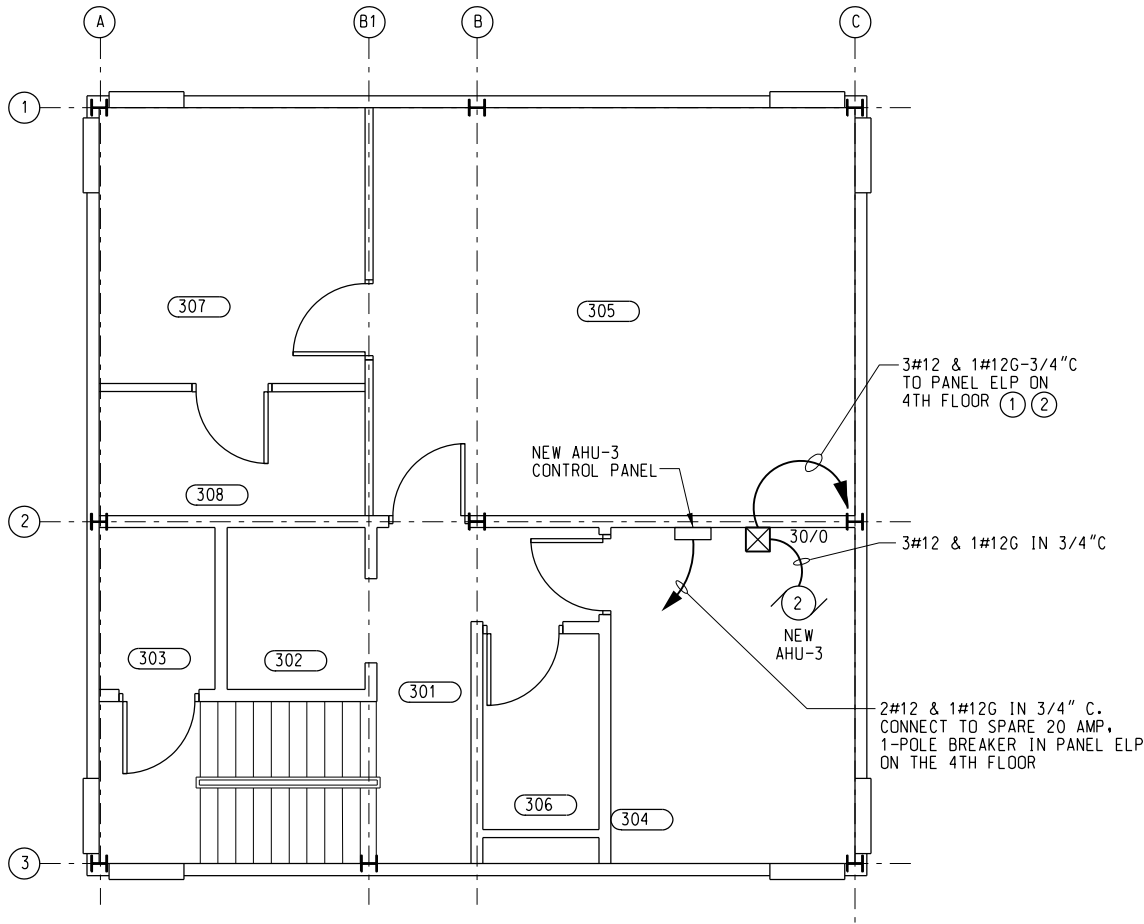
ROOM SCHEDULE	
201	HALL
203	CABLE SHAFT
204	MECHANICAL EQUIPMENT
205	SECRETARY & RECEPTIONIST
206	ATCT MANAGER
207	AREA MANAGER AUS
208	WOMEN'S TOILET



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.															
															
REV	APPROVED DATE	DESCRIPTION				JCN	REDLINE DATE	APVD							
<p align="center">DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</p> <p align="center">TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL SECOND FLOOR PLAN</p> <p align="center">BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN</p>															
REVIEWED BY		SUBMITTED BY				APPROVED BY									
		BOB BODRAN				MARK BEEKMAN									
		DESIGNED		TJH	ISSUED BY		DATE	6/7/2012	JCN	701374					
		DRAWN		GTC	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-E102						
		CHECKED		TJH						REV					
<p>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</p> <p>HEI JOB NUMBER: 11020.00</p>															

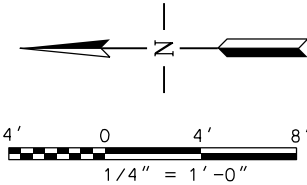
NOTES

- ① REMOVE 3-SPARE 20 AMP, 1 POLE SPARE BREAKERS IN PANEL ELP AND INSTALL A NEW 20 AMP, 3 POLE BREAKER FOR AHU-3.
- ② NEW CIRCUIT BREAKERS SHALL MATCH EXISTING BREAKERS OF SIMILAR FRAME SIZE, INCLUDING SHORT CIRCUIT INTERRUPTION CAPACITY.

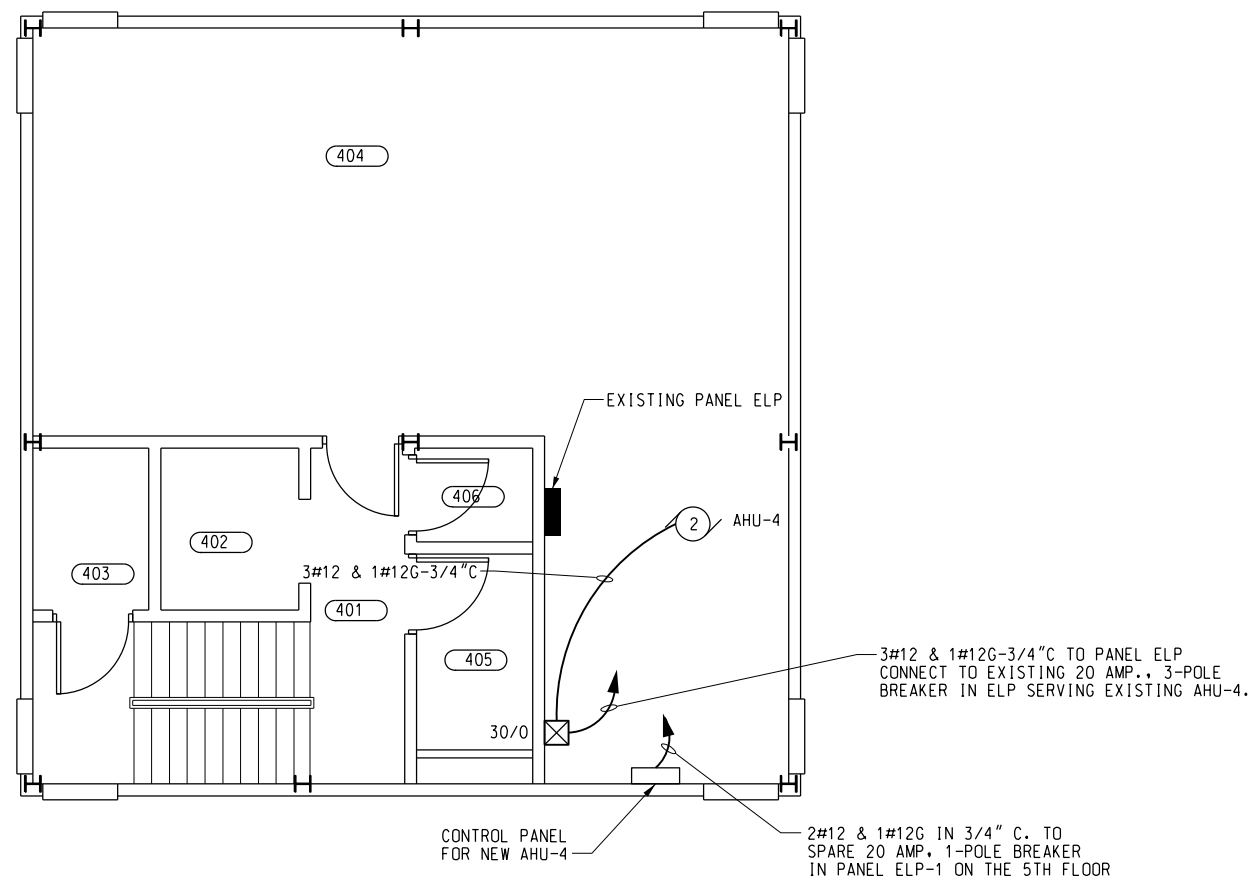


1 THIRD FLOOR PLAN
E03 SCALE: 1/4" = 1'-0"

ROOM SCHEDULE	
301	HALLWAY
302	ELEVATOR
303	CABLE SHAFT
304	MECHANICAL EQUIPMENT
305	TRAINING
306	MEN'S TOILET
307	OAS
308	STORAGE ROOM

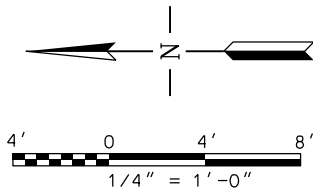


SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																	
REV		APPROVED DATE		DESCRIPTION				JCN									
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																	
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL THIRD FLOOR PLAN																	
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN																	
REVIEWED BY		SUBMITTED BY				APPROVED BY											
		BOB BODRAN				MARK BEEKMAN											
		DESIGNED		TJH		ISSUED BY		DATE									
		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		6/7/2012									
		CHECKED		TJH		DRAWING NO		701374									
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328								HEI JOB NUMBER: 11020.00									
								TRI-D-ATCT-E103									



1 FOURTH FLOOR PLAN
E04 SCALE: 1/4" = 1'-0"

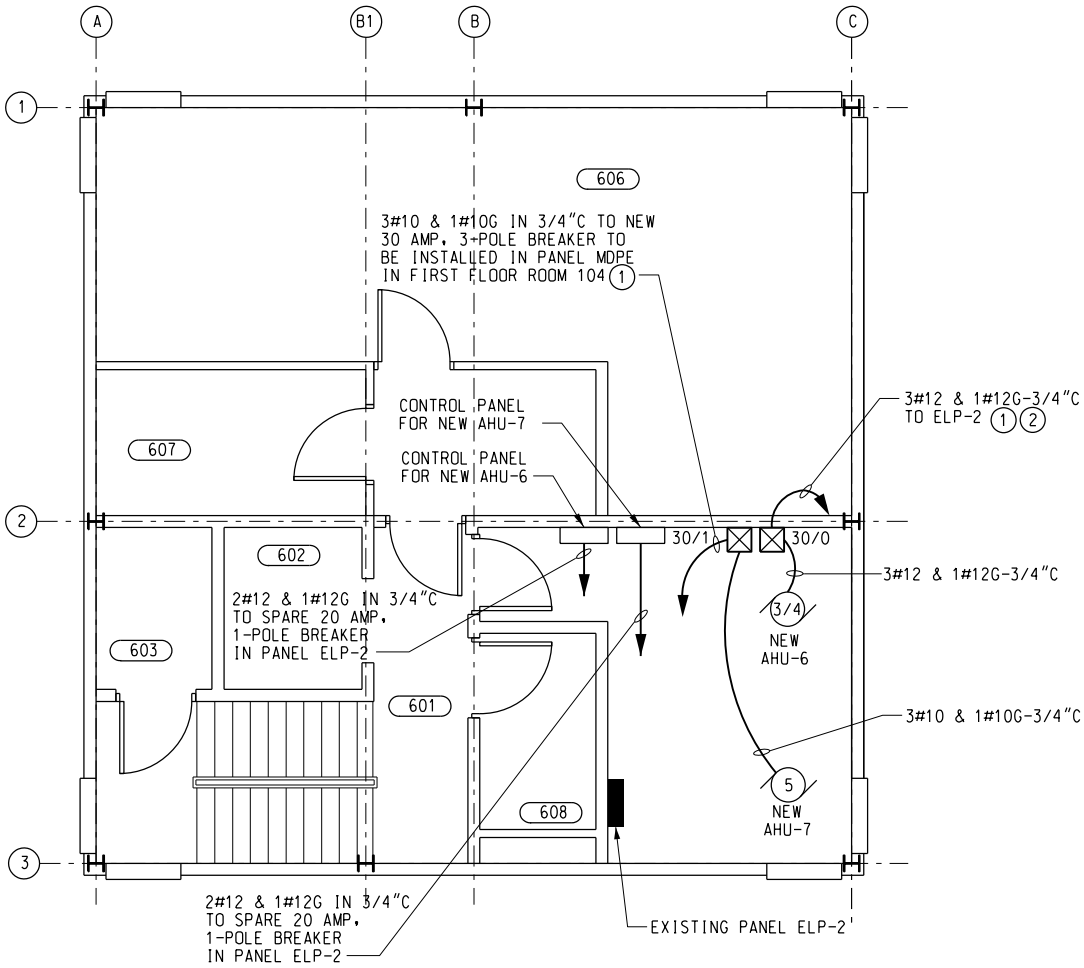
ROOM SCHEDULE	
401	HALLWAY
402	ELEVATOR
403	CABLE CHASE
404	ELECTRONIC EQUIPMENT
405	LAVATORY
406	JANITOR
407	MECHANICAL EQUIPMENT



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.																	
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REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD								
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION																	
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL FOURTH FLOOR PLAN																	
BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN																	
REVIEWED BY		SUBMITTED BY					APPROVED BY										
		BOB BODRAN					MARK BEEKMAN										
		DESIGNED TJH		ISSUED BY		DATE 6/7/2012		JCN 701374									
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-E104	REV								
		CHECKED TJH															
7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328 HEI JOB NUMBER: 11020.00																	

NOTES

- ①
- NEW CIRCUIT BREAKERS SHALL MATCH EXISTING BREAKERS OF SIMILAR FRAME SIZE, INCLUDING SHORT CIRCUIT INTERRUPTION CAPACITY.
- ②
- REMOVE 3-1 POLE SPARE BREAKERS IN ELP-2 AND INSTALL 15 AMP, 3 POLE BREAKER FOR POWER TO NEW AHU-6.



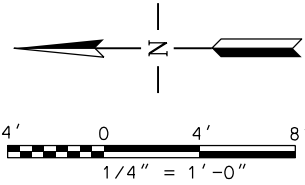
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E06

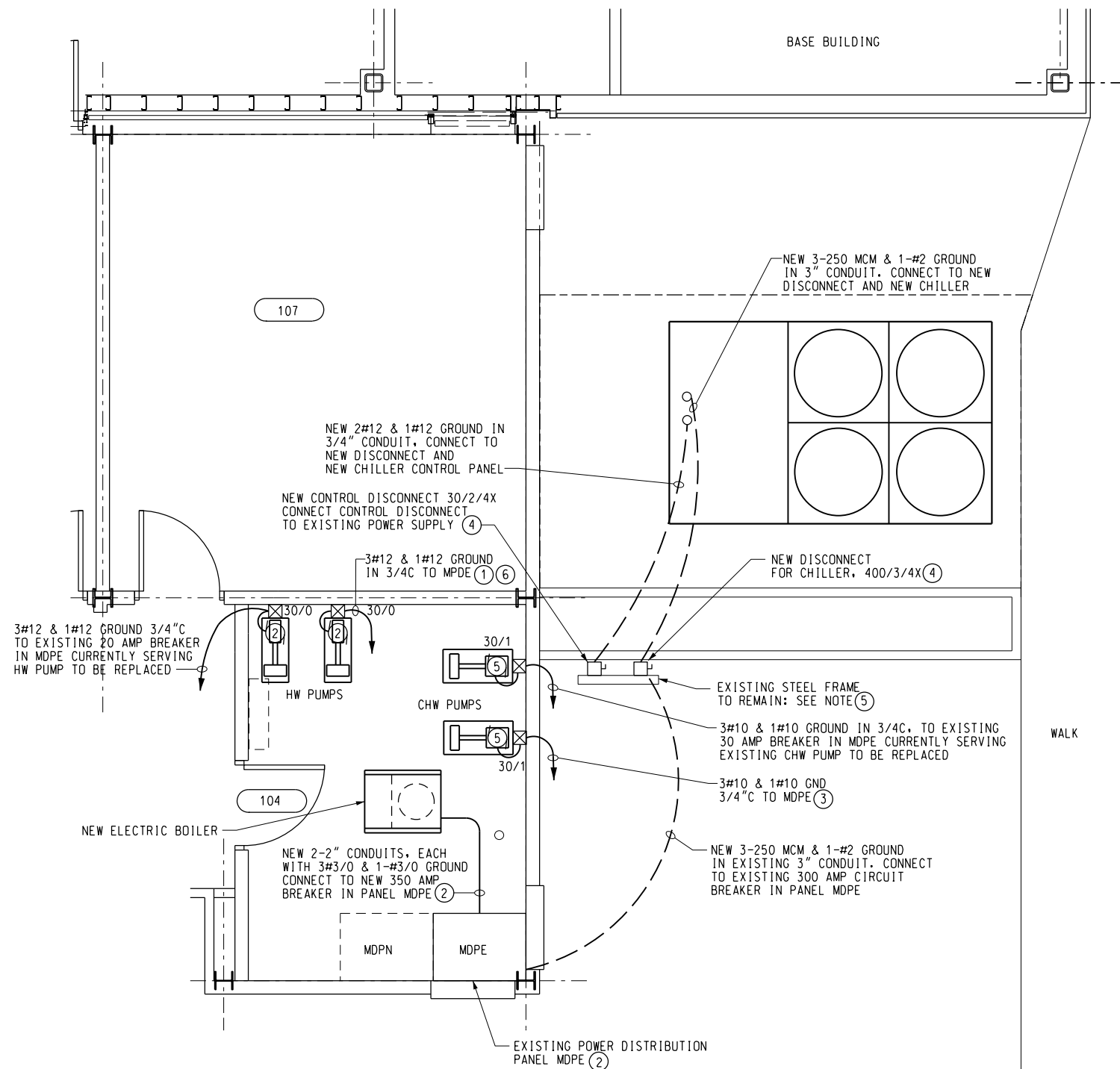
SIXTH FLOOR PLAN

SCALE: 1/4" = 1'-0"

ROOM SCHEDULE	
601	HALLWAY
602	ELEVATOR
603	CABLE CHASE
604	MECHANICAL EQUIPMENT
605	STAIRWAY
606	READY ROOM
607	TELCO
608	LAVATORY

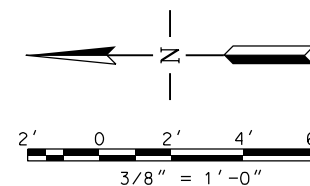


SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
<div><div></div><div>HARTRAMPF</div><div>7000 CENTRAL PARKWAY, SUITE 1475 ATLANTA, GEORGIA 30328</div><div>HEI JOB NUMBER: 11020.00</div></div>		REVIEWED BY		SUBMITTED BY		APPROVED BY		DATE	
				BOB BODRAN		MARK BEEKMAN		6/7/2012	
		DESIGNED		TJH		ISSUED BY		JCN	
		DRAWN		GTC		ATLANTA TERMINAL ENGINEERING CENTER		701374	
		CHECKED		TJH		DRAWING NO		TRI-D-ATCT-E106	
								REV	



1 ENLARGED FIRST FLOOR EQUIPMENT ROOM PLAN
E107 SCALE: 3/8" = 1'-0"

ROOM SCHEDULE	
104	MECHANICAL EQUIPMENT
107	AF RADAR UNIT SUPERVISOR



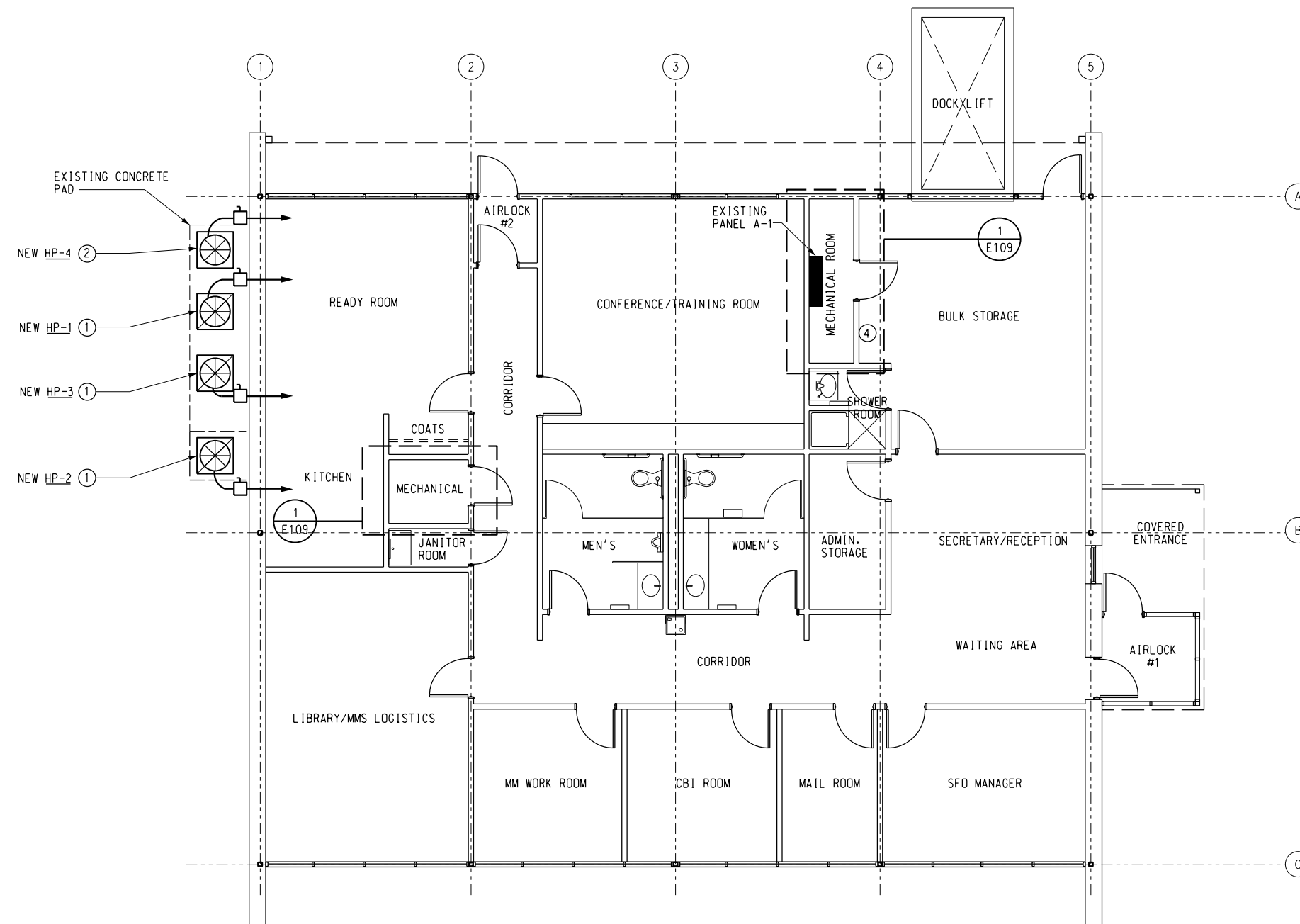
NOTES

- NEW CIRCUIT BREAKERS SHALL MATCH EXISTING BREAKERS OF SIMILAR FRAME SIZE, INCLUDING SHORT CIRCUIT INTERRUPTION CAPACITY.
- REPLACE EXISTING 250 AMP 3-POLE BREAKER IN MDPE WITH NEW 350 AMP 3-POLE BREAKER.
- INSTALL NEW 30 AMP 3-POLE BREAKER IN MDPE FOR NEW CHW PUMP.
- INSTALL FIBERGLASS SPACERS WHEN BOLTING NEW DISCONNECT TO FRAME TO PREVENT CONTACT BETWEEN STAINLESS STEEL DISCONNECTS AND STEEL FRAME.
- CHILLER DISCONNECT SWITCH MOUNTINGS AND FRAMES (AS INDICATED) SHALL RECEIVE NEW PAINT. PAINT SHALL CONSIST OF ONE PRIME COAT AND TWO FINISH COATS. DISCONNECT SWITCH MOUNTING AND FRAMES SHALL BE CLEANED, SANDED AND VOID OF RUST OR OTHER CORROSION. NO PAINTING SHALL PROCEED WITHOUT PROPER SURFACE PREPARATION. COATING SHALL CONSIST OF THE FOLLOWING PRODUCT (OR EQUAL AND PRIOR-APPROVED PRODUCTS) APPLIED ACCORDING TO MANUFACTURER RECOMMENDED INSTRUCTIONS. PRIME COAT: SUPER SPEC HP UNIVERSAL ALKYD METAL PRIMER (Z07), BENJAMIN MOORE & CO. FINISH COATS: SUPER SPEC HP D.T.M. ACRYLIC GLOSS ENAMEL (P28), BENJAMIN MOORE & CO. COLOR SHALL BE BATTLESHIP GRAY.
- INSTALL NEW 20 AMP, 3 POLE BREAKER IN MDPE FOR NEW HW PUMP.

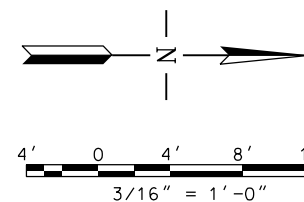
SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.					
REV	APPROVED DATE	DESCRIPTION	JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION					
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL ENLARGED FIRST FLOOR EQUIPMENT ROOM PLAN					
BLOUNTVILLE			TRI-CITIES REGIONAL AIRPORT (TRI) TN		
REVIEWED BY	SUBMITTED BY		APPROVED BY		
	BOB BODRAN		MARK BEEKMAN		
DESIGNED	TJH	ISSUED BY	DATE	6/7/2012	JCN 701374
DRAWN	CRK	ATLANTA TERMINAL ENGINEERING CENTER	DRAWING NO	TRI-D-ATCT-E107	
CHECKED	TJH				REV

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ATLANTA, GEORGIA 30328
HEI JOB NUMBER: 11020.00

- ① INSTALL NEW 60 AMP 3-POLE, NEMA 4X NON-FUSIBLE DISCONNECT. RUN 3#8 & 1#8G IN EXISTING 3/4" CONDUIT TO EXISTING PANEL A-1 AND CONNECT TO EXISTING 40 AMP 3-POLE BREAKER.
- ② INSTALL NEW 30 AMP 3-POLE, NEMA 4X NON-FUSIBLE DISCONNECT. RUN 3#12 & 1#12G IN EXISTING 3/4" CONDUIT TO EXISTING PANEL A-1 AND CONNECT TO EXISTING 15 AMP 3-POLE BREAKER.

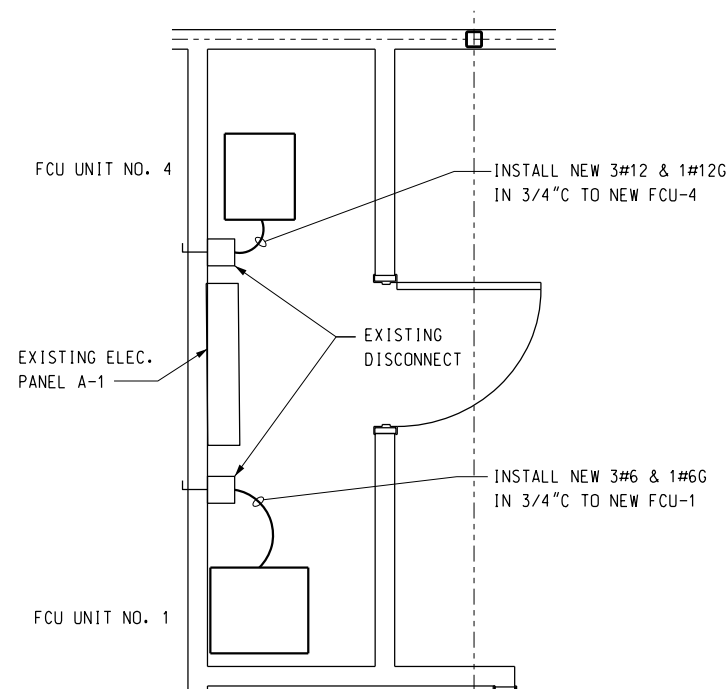


1 AFSFO BUILDING PLAN
M108 SCALE: 3/16" = 1'-0"

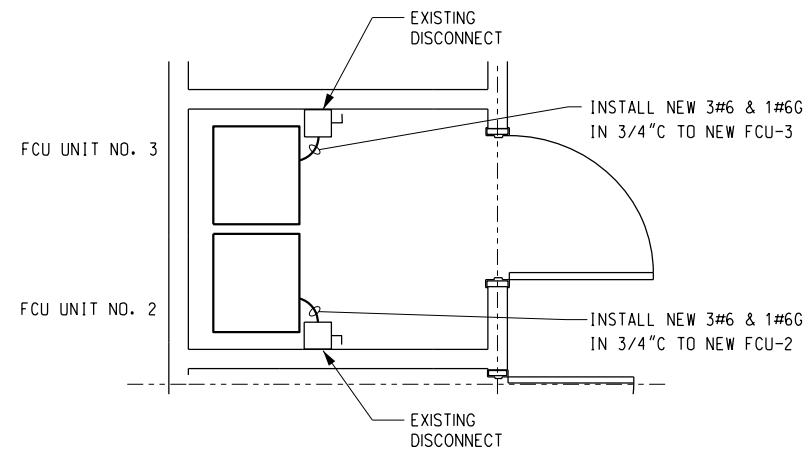


SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.

REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL AFSFO BUILDING PLAN									
BLOUNTVILLE		TRI-CITIES REGIONAL AIRPORT (TRI)						TN	
REVIEWED BY		SUBMITTED BY				APPROVED BY			
		BOB BODRAN				MARK BEEKMAN			
		DESIGNED		TJH	ISSUED BY		DATE	6/7/2012	JCN 701374
		DRAWN		GTC	ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		REV
		CHECKED		TJH					
								TRI-D-ATCT-E108	

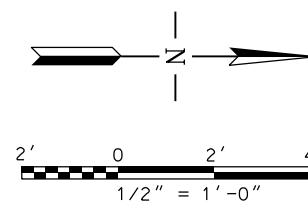


MECHANICAL ROOM 1



MECHANICAL ROOM 2

1 ENLARGED MECHANICAL ROOM PLANS
M109 SCALE: 1/2" = 1'-0"



SCALES SHOWN FOR 22" X 34" SHEET. ADJUST SCALES FOR OTHER SIZES.									
REV	APPROVED DATE	DESCRIPTION					JCN	REDLINE DATE	APVD
DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION									
TRI-CITIES AIRPORT TRAFFIC CONTROL TOWER HVAC REPLACEMENT ELECTRICAL ENLARGED MECHANICAL ROOM PLANS - AFSFO BUILDING BLOUNTVILLE TRI-CITIES REGIONAL AIRPORT (TRI) TN									
REVIEWED BY		SUBMITTED BY				APPROVED BY			
		BOB BODRAN				MARK BEEKMAN			
		DESIGNED TJH		ISSUED BY		DATE 6/7/2012		JCN 701374	
		DRAWN GTC		ATLANTA TERMINAL ENGINEERING CENTER		DRAWING NO		TRI-D-ATCT-E109	REV
		CHECKED TJH							



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HEI JOB NUMBER: 11020.00